WEST Search History

DATE: Tuesday, April 15, 2003

Set Name side by side	Query	Hit Count	Set Name result set
DB=USPT; PLUR=YES; OP=OR			
L18	6183258.pn.	1	L18
L17	L16 and auction	19	L17
L16	l13 and l11	468	L16
L15	l14 and l11	2	L15
L14	Woolston.in.	30	L14
L13	Walker.in.	5077	L13
L12	L11 and l10	1	L12
L11	invoice or receipt	117005	L11
L10	6260024.pn.	1	L10
L9	L8 and l6	12	L9
L8	L7 same l4	1096	L8
L7	(transfer$ near7 (fund or money or payment or check or amount)) or settle$	121886	L7
L6	auction$.ti.	52	L6
L5	L4 and l3 and l2	82	L5
L4	seller or owner or merchant or vendor or supplier	109410	L4
L3	buyer or purchaser or customer or consumer	157243	L3
L2	(buy$ or purchas$ or sell$ or auction$ or bid$) near7 (animal or pet or cattle)	844	L2
L1	6439169.pn.	1	L1

END OF SEARCH HISTORY

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L5: Entry 9 of 82 File: USPT Jul 23, 2002

DOCUMENT-IDENTIFIER: US 6424727 B1
TITLE: System and method of animal identification and animal transaction authorization using iris patterns

Brief Summary Text (6):
In addition, fraud and deception in animal transactions and the theft of rare or valuable animals results in losses to animal owners and increased insurance claims. The costs of theses losses are passed on to consumers in the form of higher prices for animals and animal products. Automatic animal identification has been identified as a critical technology that can be used to meet industry needs for various animal transactions, including value based marketing, genetic improvement, breeding, animal tracking, health, disease control, and food safety. Additional, government requirements in some countries include population monitoring and certification to validate farm subsidies paid on a per-animal basis. For example, the requirement for accurate animal identification within the food industry is broad-based, and includes large food animals such as cattle, sheep, and swine. In addition, identification technology applicable to high-value animals, such as thoroughbred horses and racing dogs, is needed to prevent theft and fraud, and facilitate interstate and international movement of these animals in connection with equestrian events, competition, racing, and trading. Also, the authentication of animals used in breeding is needed to avoid fraud and deception and to ensure that the desired traits of an animal are passed on to the offspring.

Brief Summary Text (7):
In addition to identifying the animal, in certain animal transactions it is also desirable to positively identify persons involved in the animal identity and tracking chain, such as an owner, a shipper and transporting personnel, buyers and sellers, food processing personnel, veterinarians and animal care takers, etc. Currently, there is no reliable system for positively identifying an animal and at the same time also identifying the person in the identity and tracking chain who proposes to have an interest in or control over the animal. Matching the animal to its rightful owner or appointed guardian helps provide certainty in animal transactions and to ensure the safe and efficient transfer of animals between interested parties in order to minimize fraud, theft, uncertainty, and other risks normally present during most animal transactions.

Detailed Description Text (62):
The iris imager of the present invention can be used in an animal identification and transaction authorization system that identifies an animal based on the iris recognition techniques described above. The present invention provides various animal industries with a non-invasive, accurate, and reliable method of identifying animals, and also of identifying and matching owners and animals. FIG. 12 shows a flow diagram of an exemplary method of the present invention that can be used for identification of one or more animals in order to authorize a transaction involving the animal or animals. FIG. 13 shows a flow diagram of another exemplary method in accordance with the present invention that can be used for identification of one or more animals and for the identification of one or more persons, and for authentication of a match between the animal and the person in order to authorized a transaction involving the animal and the person.

Detailed Description Text (65):
Regarding the health and care of an animal, it is desirable to be able to accurately keep track of the health, shots, and immunization records of a particular animal. This

allows owners and food safety personnel to be able to track individual animals and better control diseases among animals and the safety of animal food products.

Detailed Description Text (72):
In addition to identifying animals, it is desirable in certain animal transactions to identify one or more persons in the animal identity and tracking chain who are involved in the animal transaction. Examples of animal transaction where both an animal's identification and a person's identification in the identity and tracking chain may be important include: sales of animals between a buyer and seller; trading or swapping of animals for other animals or other valuable consideration between individuals; authorization of health care, shots, and immunization by veterinarians and other care providers; the shipping and transportation of animals between various locations by workers, shippers, or transporters; identifying individuals claiming to have an interest in or control over an animal, (e.g., ownership, power of attorney, guardianship, etc.); exchanges between individuals and boarding facilities (e.g., ranches, dairies, stables, kennels, etc.); exchanges between individuals and slaughterhouses and food processing facilities, etc.

Detailed Description Text (87):
In addition to identification information relating to the animal, identification information relating to a person or persons in the identity and tracking chain for a particular animal can also be enrolled in the system 5. In the exemplary cattle industry shown in FIG. 14, people in the animal identity and tracking chain can include the owner of the animal, farms with subsidies 30, slaughterhouses and food processing plants 35, transportation points, shippers, and persons involved in the transportation and handling of the cattle 40, veterinarians and other care providers responsible for vaccination, drug administration, and general health care of an animal 45, etc. Each of these parties involved in the animal identity and tracking chain can be keyed to the iris template and other biometric data of the animal.

Detailed Description Text (88):
For example, birthing enrollment data is keyed to the iris templates of the owner, animal, and DNA sample. Farms with subsidies 30 can be keyed to the iris templates of owners and animals, slaughterhouses 35 can be keyed to the iris templates for handlers, owners, and animals, transportation points 40 can be keyed to the iris templates of drivers, owners and animals, veterinarians and drug administrators 45 can be keyed to the iris templates of approved veterinarians and animals, etc.

Detailed Description Text (89):
This information can be stored at one or more local server 18, or preferably, in a centralized database 22, as shown. Preferably the central database 22 is controlled by a governing body within the industry. The local servers 18 can be coupled to the central 10 database 22 via standard wireless or wired connections. The database can contain other identification information relating to the animal and/or the person, such as name, age, markings, breed, race, etc., as well as authority levels or other entitlements, such as right of ownership, right to sell the animal, right to transport the animal, right to treat the animal, right to give shots to the animal, power of attorney, right to engage in a commercial activity involving the animal, etc. This information could be stored in the central database, or may be stored in a separate database or memory device that is pointed to by the central database once the identity of the animal and person have been authenticated.

Detailed Description Text (92):
As shown in FIGS. 15A and 15B, one or more animals, such as cattle, are preferably associated in the database with, for example, the owner of those animals. The owner's identification information 55a, 55b can be used as a pointer in the database to the animal identification information 56a, 56b associated with a particular owner, as shown in FIG. 15A. When an owner, such as owner A, sells an animal, such as cattle 4 to another person, such as owner B, then the identification information relating to cattle 4 is manipulated within the database to be associated with its new owner, owner B, as shown in FIG. 15B.

Detailed Description Text (94):
An example of the use of the invention in the cattle meat industry would work as follows. A person takes one or more cattle to a slaughterhouse and attempts to sell

the cattle. Theft of the cattle and fraud on the slaughterhouse can be avoided by requiring the persons attempting to sell the cattle to the slaughterhouse to prove ownership of or legal authority over the cattle using the animal identification and transaction authorization system. If the person is not registered in the central database as the owner of the particular cattle presented at the slaughterhouse, then the slaughterhouse would not purchase the cattle and the appropriate authorities could be notified. If the person and the animal are identified and matched in the database, authorization to complete the sale of the animal to the slaughterhouse is given. The ownership of the animal is transferred based on authentication of the identifications, and there is no need to physical brand or mark the animal.

Detailed Description Text (96):
The system and method provide a non-invasive, accurate, and reliable means for the tracking and identification of owners and animals. The system and method would include a value-added service (e.g., animal tracking and identification) for a fee. Exemplary business models contemplated to be within the scope of the invention include: generation of registration and enrollment fees for people in the animal identity and tracking chain, such as the owners of large animals used for food; annual subscription fees for everyone in the animal identity and tracking chain, such as veterinarians, farmers, ranchers, etc.; transaction fees for people who need the identity of the animal and/or the owner verified; in the case of racing animals, racetracks would pay a fee and the race would not be run until the local server acknowledges the identity of each animal entered at the gate; in the case of cattle, slaughterhouses would pay a fee to check the identity of every owner and every animal that arrives to verify the proper animal showed up, that the proper drugs had been administered by approved veterinarians, and that the owner or shipper that presents the animal is in fact the owner of the animal or a person authorized to have the animal.

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certification

L5: Entry 23 of 82 File: USPT Feb 6, 2001

DOCUMENT-IDENTIFIER: US 6183258 B1
TITLE: Method of encouraging registration of animals with a breed registry

Abstract Text (1):
A method for encouraging purchasers of pets or other types of animals to register the animals with a genealogical or breed registry involves providing a purchaser of an animal, at the time of purchase, an application form for registration of the animal with the registry wherein the application form has printed thereon sire and dam information for at least two and preferably three or four immediately previous generations of the animal to permit the purchaser to make informed purchasing decisions concerning the genetic history of the animal at the time of purchase. The purchaser of an individual animal is instructed by instructions on the registration application to complete the application by providing a name for the animal and to return the application to the registry. Upon receipt of the application, the registry assigns a registration number to the animal and issues a certificate of registration to the purchaser including the name and registration number of the animal, and the sire and dam information for at least two immediately previous generations of the animal.

Brief Summary Text (2):
The present invention relates to an improved method for maintaining breed registries and providing pedigree information to purchasers of animals and encouraging purchasers to register the purchased animals with the breed registry.

Brief Summary Text (3):
Breed registries have been established to maintain the purity of breeds and to maintain genealogical information on breeds to permit documentation of the lineage of an animal. Purchasing offspring of registered sires and dams assures the purchaser of the genetic purity of the animal. The registration process also adds value for breeders who can command higher prices for purebred animals from registered sires and dams. The method utilized by the American Kennel Club ("AKC") to maintain its registry and encourage registration of dogs is somewhat typical of practices utilized by other breed registries.

Brief Summary Text (4):
The AKC registration process is initiated by the breeders. For a dog to be entitled to registration, it must be the offspring of a registered sire and dam of the same breed. After a litter of puppies is born, the breeder (the owner or lessee of the dam) completes and returns a litter application to the AKC. In the litter application, the breeder identifies the breed, the number of puppies in the litter, the number of males and the number of females in the litter, the registered name and registration number of the sire and dam, and identifying information for the owner or lessee of the sire or dam. Within several weeks, the AKC issues registration applications to the breeder. The registration application provides the name and registration number for the sire and dam and the name of the breeder and instructions for completing and submitting the registration application to the AKC to register the puppy.

Brief Summary Text (5):
When the breeder sells a puppy, the breeder fills in the sex and color of the puppy and the name of the purchaser on the application and the breeder signs the registration application. If the initial purchaser wants to register the puppy, the purchaser fills in a name for the puppy and signs and submits to the AKC the registration application form with the registration fee. Intermediaries, such as

brokers or distributors, typically do not want to name or register the puppy prior to its subsequent transfer. If the initial purchaser is an intermediary, the intermediary does not name the puppy or sign or submit the registration application. Upon subsequent sale of the puppy by the intermediary, the intermediary completes a supplemental transfer statement, including identifying information regarding the puppy and the name of the new owner or purchaser. The intermediary signs the supplemental transfer statement and attaches it to the registration application. A supplemental transfer statement is completed and attached to the registration application each time the puppy is transferred by an intermediary.

Brief Summary Text (6):
A purchaser purchasing from an intermediary who wishes to register the puppy signs the supplemental transfer statement listing the purchaser as the owner and submits the registration application and each of the supplemental transfer statements to the AKC with the required fee. An additional fee is charged for each supplemental transfer.

Brief Summary Text (7):
Although the registration application can generally be relied upon to verify that the puppy or animal being purchased is of the breed specified, the registration application does not provide enough information to determine if the puppy is the product of inbreeding. Breeders who are breeding show or competition stock will sometimes inbreed their animals in an effort to emphasize certain traits of the parents and produce champion caliber offspring. Although such inbreeding often does produce champion quality offspring, just as often, inbreeding emphasizes undesirable traits or health defects. In the pet industry, most pet purchasers are simply trying to purchase pets for companionship and not as show animals. Such companion pets generally are not sought for their show qualities, but for their temperament and health.

Brief Summary Text (8):
If the end purchaser purchases the pet directly from a breeder, the purchaser could ask to see or obtain copies of the pedigrees of the sire and dam from the breeder to verify that the animal they are purchasing is not the result of inbreeding. However, most breeders typically do not have a printed copy of the pedigree for the sire and dam and it typically takes four to six weeks to obtain the pedigrees on the sire and dam from AKC and the current charge to obtain pedigrees from the AKC is currently approximately $38 for each animal. Because of the time and cost of obtaining pedigrees, many breeders do not want to bother with obtaining pedigrees on their sires and dams.

Brief Summary Text (9):
Many pet owners purchase their pets through pet stores or other intermediaries. The AKC registration application, which is often the only documentation for the dog provided to the purchaser by an intermediary, simply provides the registration number and name for the sire and dam as identifying information for the dog. To obtain more extensive pedigree information on the dog, the purchaser must pay an additional fee with the registration application or pay a pedigree researcher to do the genealogical research. As noted previously, obtaining a pedigree through AKC typically takes four to six weeks, and well after any purchasing decisions as to the dog would be made.

Brief Summary Text (10):
Another problem associated with the procedure utilized by the AKC is the time delay which often occurs between transfer of the puppy and the registration application. In particular, it typically takes three weeks if not longer for the AKC to provide a breeder registration applications in response to filing of a litter application. If the puppies are sold prior to receipt of the registration applications, which happens often, the paperwork typically does not catch up to the puppy in the distribution channel and the ultimate purchaser may not receive the registration application for several weeks after the purchase. In addition, even if a broker receives the registration application prior to their subsequent transfer of the animal, they typically do not transfer the registration application to the retailer until they receive payment for the animals purchased which may take several weeks, such that the registration applications typically do not reach the end purchaser for several weeks after their purchase. By then the novelty of purchasing a purebred animal may have worn off, and the purchaser of a pet for companionship as opposed to show purposes is

unlikely to complete and return the registration application.

Brief Summary Text (12):
The present invention comprises a method for encouraging purchasers of pets or other types of animals to register the animals with a genealogical or breed registry. The method involves providing a purchaser of an animal, at the time of purchase, an application form for registration of the animal with the registry wherein the application form includes sire and dam information for at least two immediately previous generations of the animal. The registration application includes instructions for completing the application by providing a name for the animal and instructions to return the application to the registry. Upon receipt of the application, the registry assigns a registration number to the animal and issues a certificate of registration to the purchaser including the name and registration number of the animal, and the sire and dam information for at least two immediately previous generations of the animal.

Brief Summary Text (13):
The registration applications may be issued to the breeder or any intermediary in the distribution chain which is able to provide the required genealogical information from a reliable source. Distributors wishing to utilize the registration process, must satisfy the requirements of the registry or registering organization to help ensure that the genealogical information provided by the distributor is from reliable sources and is accurate. The distributors can supply the genealogical information to the registry which in turn prints the necessary registration applications with the genealogical information including sire and dam information for at least two immediately previous generations printed thereon which are then provided to the distributor. The distributor then distributes or provides the registration applications to the purchasers upon purchase of the animal. To expedite the process, authorized distributors can be provided with camera ready artwork to print the registration applications with the required genealogical information. Intermediate distributors therefore do not have to rely on the breeders to initiate the registration process. Intermediate distributors can also take steps to ensure that the registration application is available at the time of purchase of the animals. Further, the process provides means for the intermediate distributors to document that the animals they are selling are not the product of inbreeding.

Brief Summary Text (15):
The objects of this invention include providing a method for maintaining a breed registry which encourages purchasers of individual animals of the breed to register the individual animals with the breed registry; to provide a method for distributing registration applications for the registry which can be initiated by distributors of the animals other than the breeder; to provide such a method in which the registration application is available for the distributor to provide to the purchaser at the time of purchase; to provide such a method which provides genealogical information concerning the individual animal to the purchaser; to provide such a method which can provide purchasers with ready means to verify that the individual animal to be purchased is not the product of inbreeding; and to provide such a method which is relatively inexpensive to implement and which is particularly well adapted for its intended uses thereof.

Detailed Description Text (3):
Referring to the drawings, FIGS. 1 through 8 show various forms or documents adapted for use in registering an individual animal with a breed registry. FIG. 1 shows a registration application 1 for use by a purchaser in registering an individual animal with a pet registry. The application 1 includes a heading 3 and identifying information 4 for the individual animal including a listing of the breeder's name 5, a listing of the breed 6, a listing of the date of birth 7, and an assigned litter number 8. A pedigree 10 for the individual animal is printed on the application 1 and includes sire and dam information for at least two immediately previous generations of the individual animal. The application 1 shown in FIG. 1 includes sire and dam information for three immediately previous generations of the individual animal. In particular the pedigree 10 provides the names of the sire 15 and dam 16, the names of the sire's sire 17 and the sire's dam 18, the names of the dam's sire 19 and the dam's dam 20, the names of the sire's paternal grandsire 21 and grandam 22, the names of the sire's maternal grandsire 23 and grandam 24, the names of the dam's paternal grandsire

25 and grandam 26, and the names of the dam's maternal grandsire 27 and grandam 28.

Detailed Description Text (4):
The application 1 provides a name space 33 comprising twenty five boxes in which the purchaser may enter a name for the individual animal and microchip number space 34 comprising approximately fourteen boxes in which the purchaser may enter a micro chip number associated with a micro chip implanted in the individual animal. Spaces are also provided to supply the sex of the individual animal, space 35, the color of the individual animal, space 36, and the date of sale to the purchaser 37. The application 1 also provides spaces for entry of identifying information for the purchaser, including the name of the purchaser, space 40, the address of the purchaser, space 41, and the phone number for the purchaser, space 42. A space 43 is also provided for the purchaser's signature.

Detailed Description Text (5):
Instructions 45 are also provided, instructing the purchaser to complete the application 1 and return it to a specified address for the registry with a required payment. Additional instructions 46 are also provided on naming the individual animal. For example, as shown in FIG. 1, it is noted that names are limited to 25 letters and are subject to approval by the registry. The naming instructions 46 also indicate that the registry retains the right to assign suffix numbers to the selected name. Registries typically retain such a right to insure that each individual animal has a distinct name for registration purposes.

Detailed Description Text (6):
FIG. 2 shows a registration certificate 51 corresponding to the registration application 1. The registration certificate 51 includes a heading 52 and a seal 53. Identifying information 54 for the individual animal is printed on the certificate, including, the individual animal's name 55, breed 56, color 57, date of birth 58, sex 59, registration number 60, microchip number 61 and the name of the breeder 62. Identifying information 64 for the owner of the individual animal is also printed on the registration certificate 51 including the owner's name 65 and address 66.

Detailed Description Text (8):
The certificate of registration 51 also incorporates an ownership transfer recordation application 70. Application 70 is used to record a transfer of ownership of an individual animal after it has been registered, to ensure that the correct ownership is recorded with the registry records. The ownership transfer recordation application 70 includes spaces to identify the seller's name, space 71, the seller's phone number, space 72 and the date of sale, space 73. A space is also provided for the seller's signature, space 74. The name of the seller should correspond to the name of the owner listed on the registration certificate 51. However, it is foreseeable that the registry might permit subsequent purchasers of an individual animal to record the transfer of ownership to them even if an intermediate owner had not.

Detailed Description Text (9):
The ownership transfer recordation application 70 also includes spaces to identify the new owner's name, space 75, the new owner's address 76 and the new owner's phone number 77. A space 78 is also provided for the new owner's signature and a space 79 is provided to record a microchip number if not previously recorded.

Detailed Description Text (12):
The second side 102 of the application 100 includes a heading 114 including instructions 115 on completing and returning the form to the registry. The second side includes spaces for the purchaser to provide information for use in registering the individual animal with the registry. In particular, the second side includes a name space 117 comprising twenty five boxes in which the purchaser may enter a name for the individual animal and a microchip number space 118 comprising approximately fifteen boxes in which the purchaser may enter a microchip number associated with a microchip implanted in the individual animal. Spaces are also provided to supply the sex of the individual animal, space 119, the color of the individual animal, space 120, and the date of sale to the purchaser 121. The application 100 also provides spaces for entry of identifying information for the purchaser, including the name of the purchaser, space 122, the address of the purchaser, space 123, and the phone number for the purchaser, space 124. A space 125 is also provided for the purchaser's signature.

Detailed Description Text (13):
Instructions 128 are also provided, instructing the purchaser to complete the application 100 and return it to a specified address for the registry with a required payment. Additional instructions 129 are also provided on naming the individual animal and recording a microchip number. For example, as shown in FIG. 4, it is noted that names are limited to 25 letters and are subject to approval by the registry. The naming instructions 46 also indicate that the registry retains the right to assign suffix numbers to the selected name.

Detailed Description Text (14):
The registration application 100 also provides, on the second side 102, a listing 131 of services offered by the registry or advantages to registration in an effort to encourage registration. The name and address 133 of the individual or entity selling the individual animal may also be printed on the registration application 100 at the seller's request.

Detailed Description Text (15):
FIGS. 5 and 6 show an alternative embodiment of a registration certificate 150 having a first side 151 and a second side 152 and generally corresponding to the registration application 100. The first side 151 of the registration certificate 150 generally comprises a pedigree and includes a heading 153, a seal 154. Identifying information 155 for the individual animal is printed on the certificate first side 151, including, the individual animal's name 156, breed 157, color 158, date of birth 159, sex 160, registration number 161, microchip number 162 and the name of the breeder 163. Identifying information 164 for the owner of the individual animal is also printed on the registration certificate first side 151 including the owner's name 165 and address 166.

Detailed Description Text (17):
The second side 152 of the certificate of registration 150 generally comprises an ownership transfer recordation application which can be used to record a transfer of ownership of an individual animal after it has been registered. The second side 152 includes a heading 170 and spaces to identify the seller's name, space 171, the seller's phone number, space 172 and the date of sale, space 173. A space is also provided for the seller's signature, space 174.

Detailed Description Text (18):
The second side 152 also includes spaces to identify the new owner's name, space 175, the new owner's address 176 and the new owner's phone number 177. A space 178 is also provided for the new owner's signature and a space 179 is provided to record a microchip number if not previously recorded.

Detailed Description Text (20):
A litter registration application 200 is shown in FIGS. 7 and 8, FIG. 7 showing a first side 201 and FIG. 8 showing a second side 202. The first side 201 includes a heading 204 and a number of spaces for providing information concerning the sire and dam and the owners or lessees thereof. In particular, the first side 201 of the litter registration application includes spaces to identify the breed of the sire and dam, space 207, the name, address and phone number of the owner or lessee of the sire on the date of mating, spaces 208, 209 and 210 respectively, the date of first mating, space 211, the name of the sire, space 212, the registration number of the sire with the registry, space 213, and a space for the signature of the owner or lessee of the sire, space 214.

Detailed Description Text (21):
The first side 201 also includes spaces to identify the name, address and phone number of the owner or lessee of the dam on the date of mating, spaces 218, 219 and 220 respectively, the name of the dam, space 221, the registration number of the dam with the registry, space 222, the litter whelp date, space 223, the number of males in the litter, space 224, the number of females in the litter, space 225 and a space for the signature of the owner or lessee of the dam at the time of mating, space 226.

Detailed Description Text (22):
The first side 201 also includes a space for listing of the breeder's membership

number with the registry, space 228 and the membership expiration date, space 229. Spaces are also provided to record identifying information for a purchaser or lessee of the dam who acquired ownership or leased the dam after mating and before birth of the litter including a spaces for the new owner or lessee's name, address, phone number and signature, spaces 230-233 respectively. The first side 201 also includes instructions 235 for completing and returning the application to an address specified for the registry with the appropriate fee.

Detailed Description Text (26):
The above noted forms or documents as shown in FIGS. 1 through 8 are adapted for use in encouraging the purchasers of individual animals to register the animals with the breed registry issuing the documents to assist in developing and maintaining a breed registry. Although registration applications 1 and 100 and certificates of registration 51 and 150 are generally interchangeable, reference will generally be made to registration application 1 and certificate of registration 51 in describing the method of the present invention.

Detailed Description Text (27):
In general, the method comprises providing a purchaser of an individual animal, at the time of purchase, one of the registration applications 1 with the animals pedigree 10 for at least two immediately previous generations printed thereon as generally shown in FIG. 1 which includes the pedigree 10 for the three immediately previous generations printed thereon. The method also comprises providing instructions to the purchaser to complete the registration application 1 and return the completed registration application 1 to the registry with the appropriate registration fee. Although registration application 1 provides a specific instruction on naming the individual animal, and a specific instruction to return a completed application, simply providing a registration application form with blanks to fill in with identifying information for the individual animal, including a name, and identifying information for the purchaser or applicant would be considered instructions to complete the application. In completing the registration application, the applicant or purchaser of the individual animal provides a name for the individual animal in the name space 33 and fills in a microchip number for the individual animal, if available, in space 34. The purchaser also fills in the sex, color and date of sale of the animal in spaces 35-37 respectfully, and the purchaser fills in his or her name, address and phone number in spaces 40-42 and then signs the application in space 43.

Detailed Description Text (28):
Upon receipt of a completed registration application 1 with the appropriate fee, the registry assigns a registration number to the individual animal and enters the information from the registration application 51 and the registration number into a relational database. Information entered into the database includes the identifying information 4 for the individual animal including the breeder's name 5, the breed 6, date of birth 7, litter number 8, the animal's name entered in space 33, the microchip number entered in space 34, the sex, color and date of sale of the animal from spaces 35-37 and the owner's name, address and phone number from spaces 40-42. As discussed in more detail below, the sire and dam information from the pedigree 10 for the animal as printed on the registration application 1 will have already been entered into the relational database. Once the information from the registration application 1 is entered into the relational database, the registry prints a certificate of registration 51 with the information noted above and sends it to the applicant. As noted above, the certificate of registration 51 includes the individual animal's name 55, breed 56, color 57, date of birth 58, sex 59, registration number 60, microchip number 61 (if applicable), the name of the breeder 62, and the pedigree or sire and dam information 67 which is the same as provided on the registration application 1. Identifying information for the owner of record 64, including the owner's name 65 and address 66 are also printed on the certificate of registration 51.

Detailed Description Text (29):
FIG. 9 comprises a simplified block diagram of the method of the present invention. Block 251 corresponds to the step of providing the purchaser of an individual animal a registration application for a breed registry with a pedigree printed thereon. Block 252 corresponds to the step of providing instructions to the purchaser to complete and return the application to the registry. Block 253 corresponds to the step of assigning a registration number to the individual animal and block 254 corresponds to the step

- of issuing a certificate of registration to the purchaser having the individual animal's pedigree printed thereon.

Detailed Description Text (30):
To promote the registration program and distribute the registration applications 1 or 100, the registry works with individuals or entities distributing the animals to provide them with the registration applications 1 or 100 for individual animals for distribution to purchasers either directly or through intermediate purchasers. There are several different methods by which the registration application 1 or 100 may be generated and supplied to the purchaser depending on part on the method of distribution of the animal.

Detailed Description Text (31):
In the companion pet industry and in particular with dogs, there are typically three primary types of sellers of dogs, breeders, brokers and retailers such as pet stores. Each of these may generally be referred to as sellers or distributors. In the method of encouraging registration, the registry preferably works with each of these classes of sellers to permit them to initiate or provide the registration applications to their purchasers who can complete and return the applications or in the case of intermediate purchasers, who can pass the applications on to their purchasers.

Detailed Description Text (32):
When working with breeders (generally the owner or lessee of the dam), the registry may provide the breeder with a plurality of litter registration applications 200 with instructions to complete and submit to the registry, upon the birth of a litter, a litter registration application 200 with the required fee. The breeder fills in the spaces on the litter application as discussed above providing identifying information on the sire and dam including their registration numbers with the registry, identifying information on the owners or lessees of the sire and dam and the numbers of males and females in the litter. If either the sire and dam are not registered with the registry, the breeder is required to provide the pedigree for the unregistered animal from a verifiable source to register the litter. In a preferred embodiment of the method, the breeder's are required to provide sire and dam information for at least the three immediately previous generations for any unregistered animal. The registry will already have the desired sire and dam information entered into its relational database for any animals previously registered with the registry and therefore the breeder is not required to provide this information. After completing the litter registration application 200, the breeder then submits the litter registration application 200 to the registry with the required fee. The registry assigns a litter number or other identifying indicia to each animal in the litter and enters the information on the litter registration application 200 into the relational database along with the litter numbers. Generally, there will a successive litter number for each animal in the litter. If there are five animals in a litter, there will be five successive litter numbers. The litter numbers may incorporate letters or other indicia to identify the breeder and the year the litter was born. The registry then prints registration applications 1 with the information noted above and sends the registration applications to the breeder. The breeder then provides a registration application 1 to the purchaser of each of the offspring in the litter.

Detailed Description Text (34):
The registry also works with brokers to permit the brokers to provide their purchasers with registration applications 1, even if the breeder does not obtain or distribute the registration applications. Many brokers, particularly in the dog industry, already have databases containing pedigree information for the sires and/or dams of breeders from whom they frequently purchase animals or the brokers work with established stud book researchers to obtain the pedigree information on animals whose pedigree has not been entered into the broker's database. The registry reviews the procedures utilized by the broker to verify the that the procedures utilized are likely to produce accurate pedigrees. The registry then provides the broker with registration applications 1 without the identifying information 4 or pedigree printed thereon.

Detailed Description Text (35):
When the broker purchases an animal from a breeder, the broker obtains the identifying information 4 for the animal from the breeder and the pedigree information either from its own database or from a reliable source such as an established stud book

researcher. The identifying information 4 is entered into the broker's database along with the pedigree (if not already in the database). The broker assigns the animal a litter number which is also entered into the broker's database. The registry may require the broker to incorporate a prefix to its litter numbers which identifies the broker and distinguishes its litter numbers from those of other brokers, so that no two animals in the registries database have the same litter number. The prefix may comprise letters or numbers or other indicia. The broker prints the identifying information 4 (including the litter number 8) and the pedigree 10 onto a registration application 1. When the broker sells the animal, the broker transfers or distributes the registration application 1 with the animal.

Detailed Description Text (38):
The registry instructs the distributors or sellers with which it works, that the registration applications are intended to be completed and returned by the end purchaser. The distributors are instructed to instruct any intermediate transferees to pass the registration applications on to the end purchaser. The brokers and retailers typically are not interested in registering individual animals prior to sale, because they do not want to incur the expense of doing so and they want to provide the purchaser the opportunity to name the animal.

Detailed Description Text (39):
It is becoming more common for distributors of animals to implant microchips into the animal prior to sale to add value to the animal. Similarly, animal owners are increasingly having microchips implanted in their animals. The microchip may include identifying information for the animal to help identify lost or stolen dogs which have been recovered. As noted above the microchip number associated with the microchip may be printed by the purchaser on the registration application, such as in space 34 of application 1. If the seller had a microchip implanted in the animal, the seller could complete the microchip number space 34 prior to transfer of the animal or simply provide the purchaser with the number.

Detailed Description Text (40):
The registry then works through governmental agencies or animal welfare organizations to encourage animal shelters to scan any animals brought into the shelter with a device which would receive a microchip number from the microchip and to check with the registry to attempt to cross-reference the animal with its owner using the microchip number if the animal is registered with the registry. The registry similarly works with governmental agencies or animal welfare organizations or entities regulating medical testing to have them encourage or require entities such as testing laboratories to scan animals purchased for medical experiments and to check with the registry to verify that the animal has not been reported as stolen to the registry. The registry can offer other services such as those identified in FIGS. 4 and 6 and promote such services to the purchasers of animals on the registration application to encourage registration and on the certificate of registration to encourage subsequent purchasers to record the transfer of ownership.

Detailed Description Text (41):
As noted above, a portion of the certificate of registration, 51 or 150, comprises a ownership transfer recordation application. If an purchaser who has registered his or her animal with the registry and received a certificate of registration 51, subsequently sells the animal, the seller and the new purchaser complete the ownership transfer recordation application 70 and the new owner submits the certificate 51 with the required fee to the address specified on the certificate 51. The certificate 51 provides instructions to complete the ownership transfer recordation application 70 and to return the certificate 51 to the registry to record the transfer of ownership. In completing the ownership transfer recordation application 70 the parties fill in the seller's name and phone number and the date of sale, the new owner's name address and phone number and both parties sign the document in the spaces provided. The certificate 51 provides instructions instructing the seller or purchaser to provide or record a microchip number for the animal if not done previously. Upon receipt of the certificate 51 with the completed ownership transfer recordation application 70, the registry changes records the new information concerning the identity of the new owner of the animal in the relational database and enters a microchip number if provided and not previously entered in the relational database. The registry then prints a new certificate of registration 51 providing the identifying information for the new owner

and sends the new certificate of registration 51 to the listed owner.

CLAIMS:

1. A method for encouraging purchasers of individual animals of a species to register said individual animals with a genealogical registry, comprising the steps of:

(a) providing a purchaser of an individual animal of said species an application form for registration of said individual animal with said registry; said application form having sire and dam information for at least two immediately previous generations of said individual animal printed thereon;

(b) providing instructions to said purchaser to complete said application form providing a name for said individual animal and instructions to return said application form to said registry; and

(c) registering said individual animal with said registry upon receipt of said application form.

3. The method as in claim 1 further comprising the steps of:

(a) assigning a registration number to said individual animal upon receipt of said application form; and

(b) issuing a certificate of registration to said purchaser including said name for said individual animal, said registration number for said individual animal, and said sire and dam information for at least two immediately previous generations of said individual animal.

4. The method as in claim 3 further comprising the step of inputting said name of said individual animal, said registration number of said individual animal and said sire and dam information for said individual animal into a relational database upon receipt of said application form from said purchaser.

5. The method as in claim 4 wherein said step of providing instructions to said purchaser further comprises providing instructions to said purchaser to enter on said application form a microchip number associated with a microchip implanted in said individual animal; and said method further comprises inputting said microchip number for said individual animal into said database upon receipt of said application from said purchaser and associating said microchip number for said individual animal with said registration number.

6. A method for encouraging purchasers of individual animals of a species to register said individual animals with a genealogical registry, comprising the steps of:

(a) providing a purchaser of an individual animal of said species an application form for registration of said individual animal with said registry; said application form having sire and dam information for at least two immediately previous generations of said individual animal printed thereon;

(b) providing instructions to said purchaser to complete said application form providing a name of said purchaser, an address for said purchaser, a name for said individual and a microchip number associated with a microchip implanted in said individual animal and instructions to return said application form to said registry;

(c) assigning a registration number to said individual animal upon receipt of said application form; and

(d) issuing a certificate of registration to said purchaser including said purchaser's name, said individual animal's name, said registration number for said individual animal, said microchip number for said individual animal and said sire and dam information for at least two immediately previous generations of said individual animal.

8. The method as in claim 6 further comprising the step of inputting said purchaser's

name, said purchaser's address, said individual animal's name, said registration number for said individual animal, said microchip number for said individual animal and said sire and dam information for said individual animal into a relational database upon receipt of said application form.

9. A method for maintaining a genealogical registry for a species of animals comprising the steps of:

(a) supplying a distributor of said species of animals with an application form for registration of an individual animal of said species of animals with said registry; said application form having sire and dam information for at least two immediately previous generations of said individual animal printed thereon;

(b) instructing said distributor to transfer said application form to a purchaser of said individual animal at the time of purchase;

(c) providing instructions to said purchaser to complete said application form providing a name for said individual and instructions to return said application form to said registry;

(d) receiving said application form completed by said purchaser for said individual; and

(e) registering said individual animal with said registry upon receipt of said application form.

11. The method as in claim 9 further comprising the steps of:

(a) assigning a registration number to said individual animal upon receipt of said application form; and

(b) issuing a certificate of registration to said purchaser including said name for said individual animal, said registration number for said individual animal and said sire and dam information for at least two immediately previous generations of said individual animal.

12. The method as in claim 11 further comprising the step of inputting said name of said individual animal, said registration number of said individual animal and said sire and dam information for said individual animal into a relational database upon receipt of said application form from said purchaser.

13. The method as in claim 12 wherein said step of providing instructions to said purchaser further comprises providing instructions to said purchaser to enter on said application form a microchip number associated with a microchip implanted in said individual animal; and said method further comprises inputting said microchip number for said individual animal into said database upon receipt of said application from said purchaser and associating said microchip number for said individual animal with said registration number.

14. A method for encouraging purchasers of individual animals of a species to register said individual animals with a genealogical registry; said method comprising the steps of:

(a) having a distributor of animals of said species print identifying information and sire and dam information for at least two immediately previous generations regarding an individual animal on an application form for registration of individual animals of said species with said registry;

(b) instructing said distributor to transfer said application form with identifying information and sire and dam information printed thereon to a purchaser of said individual animal at the time of purchase;

(c) providing instructions to said purchaser to complete said application form providing a name for said individual animal and instructions to return said application form to said registry;

(d) receiving said application form completed by said purchaser for said individual animal;

(e) registering said individual animal with said registry upon receipt of said application form.

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Quality assurance in Scotland's beef and lamb sector

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ABSTRACT: This paper outlines the Scotch Quality Beef and Lamb Association approach to quality assurance and product traceability in the beef and lamb sectors.

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Introduction

In recent years concern about food safety have focused particularly strongly on the meat sector. The UK response in 1996 to the criticism of the beef industry was the Assured British Meat (ABM) initiative. This independently run company assists the livestock and meat industry to develop standards and inspection protocols for each of its sectors, and these must satisfy the accreditation procedures of the United Kingdom Accreditation Service (UKAS). UKAS is the body responsible for administering the EN450 series of accreditation procedures, the European standards for products and inspection bodies.

However, the need for quality assurance was recognised and addressed in Scotland, some considerable time before the food production system was called into question by recent scares over food safety. Scotland already had well established systems of quality assurance through various farm assurance schemes set up during a period of development in the early 1990s. This paper presents how quality assurance has been developed throughout the production and marketing chain for Scottish beef and lamb. It starts by summarising the activities of the Scotch Quality Beef and Lamb Association (SQBLA) which has developed two quality brands - "Specially Selected Scotch Beef" and "Specially Selected Scotch Lamb". The presentation of these quality assured products to consumers involves all stages of the production and marketing chain from farmers right through to retailers. Thereafter, the paper examines in some detail the complementary assurance and traceability system of "Scotbeef", one of Scotland's foremost beef suppliers. Scotbeef's "Beeftrack" system provides detailed assurance arrangements both on the farm and in the meat plant, and takes account of the specific requirements of its commercial customers.

Scotch Quality Beef and Lamb Association - aims and application

SQBLA was established in the early 1970s with the aim of promoting beef and lamb produced in Scotland as a unique product with certain standards, both in its production and in its eating quality. Its first Farm Assured Scotch Livestock scheme (FASL) was put into practice in October 1990. Initially, it received minimal support from producers. The concept of independent inspection and quality assurance proved difficult for the farming industry to accept, despite strong support from the Scottish Meat Trade. FASL was replaced in July 1995 by SQBLA Farm Assurance. This operates an on-farm production assurance scheme which ensures, by independent inspection, skilled and responsible farming practice that complies with Government regulations and industry codes of practice.

It was the crisis precipitated by the BSE/CJD connection, and the

subsequent ban on the export of UK beef, which convinced producers of the necessity of quality assurance and product traceability. This event coincided with a recruitment drive by SQBLA. The resultant increase in the number of producers joining the SQBLA Farm Assurance scheme was considerable, rising from 4,000 during the first quarter of 1996 to almost 7,000 in early 1998. Prior to this, the scheme had not achieved the critical mass of product essential for any quality scheme to become accepted in the market (Entwistle et al., 1997). This position is changing as the Farm Assured scheme, certified by Scottish Food Quality Certification Ltd (SFQC), now covers sufficient product to achieve significant integrity in the market in terms of providing both the means of tracing product to source and the guarantee of a quality product.

On the farm - SQBLA farm assurance

Beginning on the farm, every calf must, by law, be double **tagged** (an **identification tag** is fixed in each **ear**) within seven days of birth. It is issued with a passport for recording all farmer owners from birth and a Cattle Control Document (CCD) which records the movement of the animal. The CCD has a SQBLA label attached which indicates name, address and farm assurance number. Any movement between holdings is also recorded in the individual farm animal movement book which is a key document for inspection by SQBLA. These records have been required by law since July 1996. In addition to these records, SQBLA further assesses the producer in order to guarantee the quality assurance (QA) aspects and to assist in product traceability. Animal welfare, feed and veterinary records and management competence are all assessed on an annual basis. It is essential that such information is available to be transmitted down the food chain.

At the auction mart - SQBLA market assurance

The Institute of Auctioneers and Appraisers in Scotland have set up a scheme, in association with SQBLA, to maintain full traceability of all stock passing through **auction** markets whilst further ensuring that full **animal** welfare standards are maintained (Simpson, 1998). **Animal** records are checked on arrival at the **auction** market and their current farm assurance status is cross-checked on the computer database provided by SQBLA to all auction markets in Scotland. When the auction market company is satisfied that the records are accurate, the animals may then be sold as SQBLA Farm Assured. The auction markets themselves are also assessed by SQBLA inspectors to check that all traceability records are being maintained. SQBLA Market Assurance now covers all of Scotland's livestock markets.

At the abattoir - The Guild of Scotch Quality Meat Suppliers

The Guild of Scotch Quality Meat Suppliers was established in 1988 and involves most of the major abattoirs in Scotland. There are now 20 member companies accounting for 90 per cent of the Scottish beef kill and 70 per cent of the lamb kill. The stock must come direct from Farm Assured sources or via auction markets participating in the SQBLA Market Assurance Scheme. Each plant has to demonstrate full traceability from the live animal to the batches of meat despatched. Increasingly, this is achieved through sophisticated bar coding systems in larger plants, although labels are still written out by hand in many of the smaller abattoirs. Using either method, the abattoir must demonstrate to the SQBLA inspectors, who call unannounced approximately every eight weeks, that the system used has full integrity. The final cuts are labelled with the "Specially Selected Scotch" logos and sold to either supermarkets or independent butchers.

At the butcher - Associate Guild Butchers

The quality scheme is in place right to point of sale. Retail butchers who are customers of the Guild abattoirs may join the scheme for Associates of the Guild of Scotch Quality Meat Suppliers. They may apply to SQBLA detailing their purchasing policy and naming their Guild supplier. A SQBLA assessor will cross-check all information and inspect shop features, including labelling. The sourcing of meat is fully checked by reference to invoices and delivery notes. Once awarded Associate status, a butcher may then use the "Specially Selected Scotch Beef and Lamb" labels. To date

there are 2,000 butchers who have achieved this Associate status and recently one major Scottish supermarket chain has taken on Associate status. As these brands gain consumer recognition, it is hoped to expand the shelf-space given to them by supermarkets, although supermarkets tend to have their own schemes of traceability and quality assurance.

The SQBLA scheme meets all the requirements of the new Beef Labelling legislation introduced on 1 April, 1998. Under the legislation, any retailer giving consumers anything more than basic information about beef must get prior approval. This is given only if the retailer has put in place arrangements to guarantee that the beef is exactly as claimed on the label. Traceability is a key requirement of this scheme. Labels for "Scotch Beef" will not require approval as SQBLA has already gained Protected Geographical Indication for the product under EU regulations (Council Regulation (EEC) No. 2081/92 and 2082/92) which protect the names of traditional or regional foods.

Traceability is also of concern to the catering sector. To satisfy the needs of catering outlets, SQBLA addressed the problem by initiating the "Scotch Beef Club". This is a prestigious group of restaurants which, like independent butchers, are required to name their suppliers of Scotch beef and lamb and are annually assessed by a monitoring committee. Currently there are 150 members in the UK and over 700 in Europe.

The links with Europe should not be underestimated. Scotch beef had a sizeable market on the Continent prior to the export ban. In an effort to maintain contacts, SQBLA is in negotiation with distributors who have previously sold Scotch beef. The aim is to re-establish the chain of quality assurance and traceability once the ban is lifted. This will be a vital part of the drive to regain market share.

Scotbeef's "Beeftrack" - a private sector traceability scheme

One of the meat processors participating in the SQBLA assurance system is Scotbeef. The company is based in East Kilbride, Scotland, and has an average throughput of over 1,000 cattle per week. It is a member of the Guild of Scotch Quality Meat Suppliers.

Whilst some 75 per cent of Scotbeef's "raw material" is sourced from SQBLA Farm Assured suppliers, Scotbeef has also set up its own system which places an emphasis on "eating quality" as well as the more readily measured standards such as husbandry practices, feed and veterinary records. This is the "Select Farm" scheme and approximately 80 per cent of Scotbeef suppliers are registered with it. The Select Farm audit includes inspection of stockmanship, animal health, building/housing management, welfare aspects and traceability of animal to farm of birth. These standards have been set after discussion with Scotbeef's major customers. Some registered producers are members of both the SQBLA and Scotbeef schemes.

Beeftrack - traceability and quality assurance in the meat plant

The need for a full traceability system right through to the final consumer has been recognised as necessary to meet the demands of the changing market and to satisfy major customers who seek reassurance as to the "safety" and quality of their product. Such a system has to be flexible enough to meet changing circumstances but secure enough to prevent misuse or abuse.

The traceability system used by Scotbeef is registered as "Beeftrack" and was initiated six years ago to ensure that essential information is recorded and presented in such a way that it can be extracted without amendment at any time throughout the system from farm to plate. Providing the initial information is correct, it is impossible to change this information as the meat goes through the system. This is despite the particular idiosyncrasies of the meat market which mean that the animal may be slaughtered and primaled at one factory, matured at another and processed at a third. Such a complex system requires a scheme which will offer full integrity.

In-built into this system are a number of prerequisites for a workable

traceability scheme to meet the needs of Scotbeef and their customers. These include a "determination of consumers' requirements" which focus on eating quality (i.e. the avoidance of tough, dry meat) and, secondly, the translation of these requirements into a specification which will include breed, sex, age, etc. This specification is agreed by a combination of the retailer's and processor's technical staff. Lastly, there is the production of the set of standards or the "practical blueprint" which will become the "farm assurance standard" for the retailer in question. Where a retailer, particularly a major customer, proposes a change or demands a standard not being met, Scotbeef will initiate a review of standards in conjunction with their producers and the major customer. Often a compromise is reached; a different, but nevertheless acceptable, solution to that originally proposed by the customer. The system emphasises the mutual dependence and co-operation which exist between the processor and their retail outlet. Far from there being resentment that the retailer "dictates" its requirements, there appears to be a well established practice of negotiation and compromise which results in customer satisfaction being successfully matched with the ability of the primary producer to comply with the standards specified.

All registered producers are issued with Beeftrack Movement Documents pre-printed with their own details for every consignment of cattle. These are bar-coded to be scanned into the Beeftrack database to ensure accuracy through to processing. If correct documentation is not supplied, an animal cannot be slaughtered.

The grader in the abattoir obtains from the Beeftrack Movement Document the producer code, number in the lot, eartag numbers, breed and sex, and enters the weight and grade details. The computer predetermines the destination of the carcase according to breed, weight, sex and grade. "Luggage labels" are then printed for the carcase, three for each side. The kill number and kill date provide a unique number which forms the basis of the traceability system. The time of kill is particularly important in the event of any queries about quality. Once into the boning room, the "luggage label" is scanned and eight Beeftrack labels printed. A label is sealed inside the vac pack of each primal and they are then grouped into batches. There are no more than 100 packs in any one batch which is normally drawn from eight or nine producers. The Beeftrack label is scanned into the batch. The product will remain in batches, each of which is coded with a number and a letter relating to the day of the week and to the customer. The product is then cut and packed according to customer specifications and the finished pack shows the batch code.

Beeftrack fulfils the needs of Scotbeef in providing a system which enables them to input all required information. The scheme has allowed Scotbeef to create a database of their producers and to introduce the indelible traceability tagging which stays with the meat throughout processing. It has also enabled the introduction of programmes and scanning procedures which allow the identification of product in primal joints, retail packs, and in bulk containers for other manufacturing plants which also require the same level of traceability.

Conclusion

"Quality assured products are increasingly perceived positively as a route to the provision of confidence, re-assurance and credibility" (Entwistle et al., 1997). QA schemes can provide the opportunity for an individual industry to build a market position which will assist in securing long-term viability. However, for this to be achieved, valued and discernible differences need to be well recognised by the consumer, and a clear identity for Scottish quality assured products created. SQBLA is working towards this with a quality assured scheme which is established, credible and gaining the recognition and confidence of the consumer. That the scheme has made such a positive impact on the market is due, in no small part, to the fact that the concept and mechanisms for the successful running of such schemes were already in place long before the recent crises made product traceability a necessity.

The integrity of the concept of quality assurance must be maintained if it

is to make any impact on the market and yield a price premium for the product. Consumers may become disillusioned and sceptical if there is a plethora of schemes and labels, the meaning of which is unclear to them. There is a danger that in such circumstances the industry will actually undermine that very confidence which they are attempting to encourage. A few well recognised labels with quite clear claims which can easily be substantiated would seem to be preferable to a series of individual schemes which may serve only to confuse the consumer. Although consumer concerns about food quality, content, origin and production methods are increasing, there is evidence that the level of consumer understanding of production systems and origin is limited (Entwistle et al., 1997). This can lead to inconsistencies in what consumers claim are key issues in their buying patterns and what, in effect, they actually are.

Quality assured products have not always gained as much differentiation as they might have because there is a confusing maze of claims to the consumer which leads to some distrust and cynicism. The proliferating approaches to quality raise concerns as to the "right approach" (Hayes, 1994). This is why it becomes essential to have a cohesive, preferably nationwide, scheme, the probity of which will not be doubted by the consumer.

The SQBLA schemes currently involve almost 7,000 farms but a recent initiative to expand the schemes into the Highlands and Islands is expected to increase membership considerably. In the processing and distribution sectors, all Scottish livestock markets, 20 meat plants, 2,000 butchers and 850 restaurants are currently participating. It is hoped that here too the numbers of participating outlets will increase substantially. This is an impressive commitment to quality and traceability which, it is hoped, will be recognised by the UK consumer and, in the future, by consumers across Europe. It has already been recognised by both the UK Government's Beef Labelling regulations and the European EN450 series of accreditation procedures. As increased numbers of producers and processors achieve qualifying standards, it is hoped by the schemes' sponsor and members that consumers will move from a preference for SQBLA assurance to making it a requirement.

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ABSTRACT: The beef producing industry is experimenting with a technology-driven model of supply-chain integration and management that could, among other things, raise the price cattle producers get for their wares by 5% or more, reduce costs by 20%, significantly improve the quality and consistency of the meat sold in supermarkets and restaurants, and help quell public fears about beef safety. The system is a prime example of how even the smallest organization can use relatively inexpensive technology to build a better product and secure relationships with customers. The umbrella term for what the beef companies are doing is "source verification and performance-data tracking," the creation of a kind of bovine audit trail that captures every event in an animal's life, from birth to butcher.

TEXT: Headnote:
Beef producers are using a revolutionary supply-chain system to reduce costs and raise revenues. Your industry could be next

THE SKY IS LOW, THE COLOR OF SKIM MILK, AND A breeze rattles the scraggly mesquite trees that ring the entrance to Capitol Land and Livestock, a cattle dealer in Schwertner, Tex. Behind the company's stately, porticoed main building, a brown-and-white Charbray lumbers through a labyrinthine arrangement of openair pens, gates, and alleys, stopping at last inside the squeeze chute, a narrow metal stall that restrains her movements. Wielding a tool that looks like a giant hole punch, a worker clamps a yellow plastic **tag** on one **ear** . The calf flares a nostril but appears otherwise unflustered.

Inside that thumbnail-size tag lies a tiny radiofrequency transponder. When the worker waves a metal wand over it, a unique ID number is transmitted wirelessly to a Dell laptop computer perched on an overturned trash can a few feet away. Jim Schwertner, Capitol's 46-year-old president, leans over the computer and watches as the number appears in an Excel spreadsheet. He then types in the fact that the worker is squirting TSV2, a vaccine for respiratory disease, into the calf's nose and injecting worming medicine into her flank.
The computer is also cabled to a switch box with multiple serial ports resting on a chute-side table. The ports feed the computer output from an electronic scale and a digital thermometer inserted into the calf's rectum: this animal weighs a healthy 592 pounds and has a normal temperature of 101 degrees. Her vitals punctiliously recorded, the calf is released and trots off to her pen.

(Photograph Omitted)

Captioned as: Jim Schwertner, president of Capitol land and Livestock

Capitol Land and Livestock, a $150million company founded 51 years ago by Schwertner's father, doesn't look like the epicenter of an industry revolution. But the business-along with a handful of others, many of them in Texas-is experimenting with a technology-driven model of supply-chain integration and management that could, among other things, raise the price cattle producers get for their wares by 5% or more, reduce costs by 20%, significantly improve the quality and consistency of the meat sold in supermarkets and restaurants, and help quell public fears about beef safety. "It is the single biggest thing ever to happen to this industry," says James Herring, CEO of Friona Industries L.P., an operator of feedlots and feed-manufacturing companies and one of Schwertner's partners in the supply-chain project.

At a time when companies in many industries are consolidating suppliers and demanding new informational intimacy with business partners, the beef system is a prime example of how even the smallest organization can use relatively inexpensive technology to build a better product and secure relationships with customers. And while beef producers are among the first to embrace such a sophisticated system, the model has implications for any industry in which raw material of variable quality is transformed into finished products of variable quality by a multiplayer manufacturing chain.

The umbrella term for what the beef companies are doing is "source verification and performance-data tracking," the creation of a kind of bovine audit trail that captures every event in an animal's life, from birth to butcher. Schwertner's company is using a primitive version of the system, but he expects to have a more sophisticated model in place in a few months. What won't change are the **ear tags** : each calf is outfitted with a **tag** containing a small antenna that's attached to an integrated circuit storing a unique **ID** . The **tags** work roughly like bar codes: when swept by an electronic reader, they transmit their ID numbers wirelessly to a computer.
At Capitol Land and Livestock, the ID number is stored locally in a spreadsheet, along with other information the company has about the animal. The spreadsheet is then sent on a disk to Schwertner's business partners-in this case, the companies he supplies. In the new model, all of Schwertner's data will be transmitted by modem to a database running at a third-party vendor or an industry association, where it will be joined over time by information collected by a series of owners using a variety of tools: radio-frequency identification (RFID) readers, handheld and laptop computers, electronic weigh scales, scanners that read drug-container labels-even a gadget that performs ultrasounds to determine how much fat an animal carries.

As the animal moves down the manufacturing chain, both new and past owners will be able to check that database, using the Internet, for relevant chunks of its biography. At the top, ranchers can find out how much weight an animal gained at each stage of production and how much red meat it rendered at the packing plant-information they'll use to make decisions about culling, grazing, and breeding. At the bottom, packingplant workers can check for things like needles that may have broken off in a calf's flank or drugs that have not had time to pass through its system. Even retailers will eventually be able to contribute, noting, for example, whether a slab of meat received from the packing plant broke down into 9 steaks or 16.

Large ranchers have been collecting some of this data for years, scribbling it in notebooks as animals are weighed, checked for pregnancy, or given injections, and then keying it into herdmanagement programs back in their offices. But recording which heifer bred with which bull tells them nothing about the quality of the porterhouse that resulted from that union. Using data on a calf's development fed back into the system by subsequent owners, however, ranchers can decide whether to breed two specific animals again or whether to sell the bull and put the cow out to pasture. The information can also help ranchers, feedlots, and packers identify the best and worst among their suppliers-information they weigh when deciding who receives the favor of their business.

(Photograph Omitted)

Captioned as: Bob Nunley, owner of Coyote Ranch

"This technology has shown us that preconceived ideas we've had about cattle are completely wrong," says Schwertner. "For example, the industry has for a long time thought that if you had a group of cattle that all came from the same rancher that looked alike and had the same genetics, they should all perform similarly. Not true. And now that we know that, we don't have to go out and pay more for one-ranch cattle anymore. We know what we buy at the auctions is just as good."

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In fact, shared information is becoming such a crucial part of suppliercustomer transactions that it is almost as important as the product being exchanged. "Buyers are forming links with sellers who are willing to invest in the technology and to agree on the management practices that will allow this [collection and dissemination of information] to happen," says Bill Helming, a member of the board of directors of the Supply Chain Council, a national trade association. That information helps players all along the chain reduce costs and improve quality. "As a result, the chain has the choice of charging a premium or competing on cost," says Helming. "There's enormous economic leverage."

JIM SCHWERTNER, LIKE MOST BEEF PROducers implementing supply-chain technology, is doing so within the context of an alliance formed for that purpose. These alliances include representatives from every stage of the manufacturing process: ranchers, stockers/growers, feedlots, packing plants or slaughterhouses, and, in some cases, retailers. (See "Where's the Beef?" on page 70.) While all the companies in Schwertner's alliance-called Beef Advantage-have revenues of more than $100 million, most of the calves that travel through its pipeline originate on small ranches, those with fewer than 500 head of cattle and annual sales of under $250,000. It is these small businesses that may ultimately benefit most from the system.

Calves that are born on small ranches now enter the Beef Advantage chain through Capitol Land and Livestock, which buys them either directly or through **auction** barns; the scant data that accompanies the **animals** generally travels verbally or on paper. But Schwertner expects that those ranchers, even the smallest, will start tagging their own cattle and entering information into the system when the Internet-accessible database is up and running. Under such an arrangement, the electronic audit trail that now begins with Schwertner would start with the small ranchers, who would also be able to use end-of-the-line performance data to make better breeding and management decisions.

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A calf passing through Schwertner's outfit is tagged, weighed, measured, and dosed with medicines; Schwertner then supplements data collected at the squeeze chute by typing in any printed information passed along by the animal's previous owner, such as birth date and weight at time of sale. All that information will be available to James Herring on a spreadsheet when the calf makes its next stop: Friona Industries, with headquarters in Amarillo, Tex. Herring is also a member of Beef Advantage and has agreed to buy a certain number of Schwertner's beasts as part of the alliance agreement, which also includes terms for sharing information and for adopting the technology to do so.

In the time the Charbray enjoys Friona's hospitality, she may double in weight, and all the while Herring will be adding information to his own

spreadsheet, which he shares with Schwertner. Combining Schwertner's data with information he gets back from Cargill Foods' Excel Corp., a packing plant that is the next link in the chain, Herring is able to calculate what conditions-how much an animal is fed or when it segues from grass to grain-produce the highest-quality carcass for the lowest cost. And like Schwertner, Herring will use that information when he's figuring out whom to buy from, possibly cutting exclusive deals with suppliers whose product brings the most return. "Using an integrated production process like this, we can create a superior product," he says.

So far, Schwertner's and Herring's biggest investment has been the tags, which go for between $3 and $11 each, depending on the manufacturer. Prices are dropping, however, and should settle in at around $4. In addition, Schwertner has spent $25,000 on readers, computers, and the serial devices that allow him to take chute-side measurements. But the expected returns dwarf that outlay.

First, there are the savings born of efficiency, which Herring estimates at 20% or more. For example, new owners, lacking information on an animal, will usually subject it to a regimen of drugs that may duplicate doses administered earlier in the chain and increase the amount of time the animal takes to clear the medications out of its system. Knowing an animal's age and rate of weight gain makes it easier to determine when to switch it from grass to grain-the less time it spends on grain, the less cost to its owner. And since restaurants, supermarkets, and other customers buy beef according to specific grades and weights, producers can use feedback on which calves throw those numbers out of whack to winnow the offending bulls and cows from the breeding pool.

(Photograph Omitted)

Captioned as: Anne Anderson and Lee Curkendall of AglnfoLink

And then, of course, there are the premiums. Buyers-particularly at the later stages-desperately want consistent size and quality. Packers, for example, don't want to waste time cutting excessively fatty meat do-An to a quarter-inch trim. And supermarkets want beef that they can easily divide into steaks and cuts of approximately the same size. As a result, these buyers have traditionally docked their suppliers for calves that are too large, too small, or exhibit other peculiarities. Schwertner says he's spoken with several buyers who are willing to pay extra to suppliers who can deliver a predetermined number of calves of predetermined size and quality. "Our customers aren't paying more yet for source-verified animals, but I know they will," he says. "Our goal is to try to get a 5% premium."

A third advantage is improved food safety: the system aims to mitigate the effects of-if not eliminate entirely-the kinds of mad-cow and E. coli incidents that make Frank Perdue a richer man. "If there is a scare, the system provides a mechanism to trace products that have been contaminated, which avoids the destruction of uncontaminated products and minimizes losses," says Lee Curkendall, vice-president of product development at AgInfoLink, the new systems integrator that is acting as sherpa through this high-tech terrain for several alliances. "Participants in the chain can also adjust their environmental and management practices to reduce possible contaminants." If, for example, a packing plant discovers a chemical residue in certain calves, it can notify the supplier, who can comb through those animals' histories looking for common strands or anomalies. Perhaps they all hail from a particular pasture where pesticides have been incorrectly applied.

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In Nunley's vision, alliances that could track their beef and thus guarantee its quality would trumpet the fact through labeling: consumers would grow to associate a divinely marbled rump roast with Rancher's Renaissance, for instance, and gladly pay more for it. "Right now, nobody knows whose meat they're buying," says the rancher. "We need to be able to differentiate the product-to show we're a group of people producing quality stuff."

COYOTE RANCH LOOKS ANYTHING BUT high tech: a handful of ramshackle buildings surrounded by 9,000 acres of mesquite, agorita berries, and guajillo. But if Schwertner's outfit is the Spirit of St. Louis-the earliest of adopters using the most basic of technologies-then Nunley's is the Concorde. The ranch is serving as a test site for a sophisticated implementation of the technology that may ultimately become the prototype for a national cattle-tracking system. (See "Equal-Opportunity Beef," page 75.)

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In the Rancher's Renaissance system, which should be fully deployed in March, there will be little keying of information into a laptop. Rather, sophisticated software will handle nearly everything. To start, Nunley will log on to the computer and select which bovine characteristics he wants the software to recognize-whether or not a cow is pregnant, for example. He will then take a "work card"-a 10-by-30inch piece of plastic embedded with several transponders-that is dedicated to that particular characteristic and place a label indicating a possible outcome ("yes," for pregnant; "no," for not pregnant, recheck) next to each transponder. The person working the chute can then simply scan an animal's **ear tag** and point his wand at the appropriate transponder on the card: the joyful tidings that #431B is with calf will travel via radio frequency to the computer, which may be 800 feet away in the cab of a pickup truck. Nunley also plans to set default results ahead of time, so that if all the calves passing through his chute come from one place or are undergoing the same treatment, that information will be automatically registered for each one. "The point is to save these guys from having to do a whole lot of data entry out in the field," says Curkendall. "They're cow punchers, not key punchers."

Once the proprietary software running on the computer has stored the data, the ranch will transfer a copy of it over the Internet to a Structured Query Language database running at a nonprofit technology provider to the industry. Using a password, members of the alliance will be able to access that database-also over the Internet-and run queries against individual ID numbers to see how their animals performed at different stages. They will also be able to pull reports comparing that performance with various averages (for example, how did the tenderness of my animals compare with all others processed by this packer?).
Members of Rancher's Renaissance are deploying the system with the guidance not only of AgInfoLink but also AgriInitiatives, a two-year-old consultancy to the agriculture and natural-resources industries, in Austin. (The companies are also working with Beef Advantage.) Anne Anderson is the CEO of both: she, Curkendall, and another partner devised the model for the source-verification and performance-data-tracking system and founded AgInfoLink when they couldn't find an existing technology company that could handle all the pieces.

What both companies aim to do, Anderson says, is to get all the players in the supply chain to focus on creating the best product for the end consumer, rather than simply passing off material to the next link. "We in the cattle industry have unfortunately had a somewhat cannibalistic relationship, with buyers and sellers making money at the expense of each

other," she says. "We have to realize that we're all in the food business; we're all part of the same manufacturing process."

Anderson herself is a medium-size producer-her family's ranch, Coyote Creek, in Rock Island, Tex., currently hosts about 800 head of cattle. Although she does not yet belong to an alliance and has no one to share data with, she has already begun outfitting her animals with **ear tags** in anticipation of the day when she will. "I want to get more for my calves, and I know I won't even have the opportunity if I don't do this," says Anderson, who collects information in an Excel spreadsheet on her Dell laptop. She also evangelizes among her smaller neighbors. Her most recent convert is a ranch with only 38 head; the rancher, excited by the technology but not ready to relinquish the old way of doing things, had the names, not the numbers, of his cows embossed on the outside of the tags.

Such small and medium-size players are the original source of 90% of the nation's beef. Anderson believes that once they begin sharing information among themselves and with their customers, they can-in addition to becoming part of the alliances-forge their own competitive entities with marketing power comparable to those large partnerships. "If we get bigger pools of highquality cattle, we may get a premium because there will be more good cattle per day that are available," says Anderson. "If we're all getting information back and using that information to improve decisions, it can have economic ramifications for the entire area."

That kind of thinking is fairly new for small businesses, but it makes enormous sense for many industries, says the Supply Chain Council's Bill Helming. "In the early days we took a Darwinian approach: it's me or you. Now companies are learning to compete as a chain"-even if it's a horizontal chain encompassing players that might normally be considered rivals, he explains. Cooperation among small companies also makes them more attractive suppliers to large customers. "In the past, people have said, 'All these momand-pops are too hard to do business with. I have to negotiate separate terms with every one,"' he adds. "If everyone will agree to act in a standard way and use this technology for leverage, that can make for a very effective collaboration. It could totally change the playing field."

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ABSTRACT: The cattle and beef industries have been among the last to take advantage of computer technology to modernize, but that is changing. Using technology to manage supplies and distribution is expected to reduce costs and increase earnings and product quality.

TEXT:

Beef producers are using a revolutionary supply-chain system to reduce costs and raise revenues. Your industry could be next

The sky is low, the color of skim milk, and a breeze rattles the scraggly mesquite trees that ring the entrance to Capitol Land and Livestock, a cattle dealer in Schwertner, Tex. Behind the company's stately, porticoed main building, a brown-and-white Charbray lumbers through a labyrinthine arrangement of open-air pens, gates, and alleys, stopping at last inside her the squeeze chute, a narrow metal stall that restrains her movements. Wielding a tool that looks like a giant hole punch, a worker clamps a yellow plastic **tag** on one **ear** . The calf flares a nostril but appears otherwise unflustered.

Inside that thumbnail-size tag lies a tiny radio-frequency transponder. When the worker waves a metal wand over it, a unique ID number is transmitted wirelessly to a Dell laptop computer perched on an overturned trash can a few feet away. Jim Schwertner, Capitol's 46-year-old president, leans over the computer and watches as the number appears in an Excel spreadsheet. He then types in the fact that the worker is squirting TSV2, a vaccine for respiratory disease, into the calf's nose and injecting worming medicine into her flank. The computer is also cabled to a switch box with multiple serial ports resting on a chute-side table. The ports feed the computer output from an electronic scale and a digital thermometer inserted into the calf's rectum: this animal weighs a healthy 592 pounds and has a normal temperature of 101 degrees. Her vitals punctiliously recorded, the calf is released and trots off to her pen.

Capitol Land and Livestock, a $150-million company founded 51 years ago by Schwertner's father, doesn't look like the epicenter of an industry revolution. But the business--along with a handful of others, many of them in Texas--is experimenting with a technology-driven model of supply-chain integration and management that could, among other things, raise the price cattle producers get for their wares by 5% or more, reduce costs by 20%, significantly improve the quality and consistency of the meat sold in supermarkets and restaurants, and help quell public fears about beef safety. "It is the single biggest thing ever to happen to this industry," says James Herring, CEO of Friona Industries L.P., an operator of feedlots and feed-manufacturing companies and one of Schwertner's partners in the supply-chain project.

At a time when companies in many industries are consolidating suppliers and demanding new informational intimacy with business partners, the beef system is a prime example of how even the smallest organization can use relatively inexpensive technology to build a better product and secure relationships with customers. And while beef producers are among the first to embrace such a sophisticated system, the model has implications for any industry in which raw material of variable quality is transformed. into finished products of variable quality by a multiplayer manufacturing chain.

The umbrella term for what the beef companies are doing is "source verification and performance-data tracking," the creation of a kind of bovine audit trail that captures every event in an animal's life, from birth to butcher. Schwertner's company is using a primitive version of the system, but he expects to have a more sophisticated model in place in a few

months. What won't change are the **ear tags** : each calf is outfitted with a **tag** containing a small antenna that's attached to an integrated circuit storing a unique **ID** . The **tags** work roughly like bar codes: when swept by an electronic reader, they transmit their ID numbers wirelessly to a computer.

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Jim Schwertner, like most beef producers implementing supply-chain technology, is doing so within the context of an alliance formed for that purpose. These alliances include representatives from every stage of the manufacturing process: ranchers, stockers/growers, feedlots, packing plants or slaughterhouses, and, in some cases, retailers. (See "Where's the Beef?") While all the companies in Schwertner's alliance--called Beef Advantage--have revenues of more than $100 million, most of the calves that travel through its pipeline originate on small ranches, those with fewer than 500 head of cattle and annual sales of under $250,000. It is these small businesses that may ultimately benefit most from the system.

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Rancher's Renaissance--a 20-company alliance with members in Hawaii, California, and Texas--chose Coyote Ranch as its beta site because of Nunley's familiarity with computers: the lean, laconic rancher does programming as a hobby and developed most of the business's inventory software. Charged with testing the data-collection aspects of the system prior to the establishment of an alliance-wide database, Nunley began putting **ear tags** on his cattle last October. But the use of tags is where Nunley's and Schwertner's systems part company.

In the Rancher's Renaissance system, which should be fully deployed in March, there will be little keying of information into a laptop. Rather, sophisticated software will handle nearly everything. To start, Nunley will log on to the computer and select which bovine characteristics he wants the software to recognize--whether or not a cow is pregnant, for example. He will then take a "work card"--a 10-by-30-inch piece of plastic embedded with several transponders-that is dedicated to that particular characteristic and place a label indicating a possible outcome ("yes," for pregnant; "no," for not pregnant, recheck) next to each transponder. The person working the chute can then simply scan an animal's **ear tag** and point his wand at the appropriate transponder on the card: the joyful tidings that #431 R is with calf will travel via radio frequency to the computer, which may be 800 feet away in the cab of a pickup truck. Nunley also plans to set default results ahead of time, so that if all the calves passing through his chute come from one place or are undergoing the same

treatment, that information will be automatically registered for each one. "The point is to save these guys from having to do a whole lot of data entry out in the field," says Curkendall. "They're cow punchers, not key punchers."

Once the proprietary software running on the computer has stored the data, the ranch will transfer a copy of it over the Internet to a Structured Query Language database running at a nonprofit technology provider to the industry. Using a password, members of the alliance will be able to access that database--also over the Internet--and run queries against individual ID numbers to see how their animals performed at different stages. They will also be able to pull reports comparing that performance with various averages (for example, how did the tenderness of my animals compare with all others processed by this packer?).

Members of Rancher's Renaissance are deploying the system with the guidance not only of AgInfoLink but also AgriInitiatives, a two-year-old consultancy to the agriculture and natural-resources industries, in Austin. (The companies are also working with Beef Advantage.) Anne Anderson is the CEO of both: she, Curkendall, and another partner devised the model for the source-verification and performance-data-tracking system and founded AgInfoLink when they couldn't find an existing technology company that could handle all the pieces.

What both companies aim to do, Anderson says, is to get all the players in the supply chain to focus on creating the best product for the end consumer, rather than simply passing off material to the next link. "We in the cattle industry have unfortunately had a somewhat cannibalistic relationship, with buyers and sellers making money at the expense of each other," she says. "We have to realize that we're all in the food business; we're all part of the same manufacturing process."

Anderson herself is a medium-size producer--her family's ranch, Coyote Creek, in Rock Island, Tex., currently hosts about 800 head of cattle. Although she does not yet belong to an alliance and has no one to share data with, she has already begun outfitting her animals with **ear tags** in anticipation of the day when she will. "I want to get more for my calves, and I know I won't even have the opportunity if I don't do this," says Anderson, who collects information in an Excel spreadsheet on her Dell laptop. She also evangelizes among her smaller neighbors. Her most recent convert is a ranch with only 38 head; the rancher, excited by the technology but not ready to relinquish the old way of doing things, had the names, not the numbers, of his cows embossed on the outside of the tags.

Such small and medium-size players are the original source of 90% of the nation's beef. Anderson believes that once they begin sharing information among themselves and with their customers, they can--in addition to becoming part of the alliances--forge their own competitive entities with marketing power comparable to those large partnerships. "If we get bigger pools of high-quality cattle, we may get a premium because there will be more good cattle per day that are available," says Anderson. "If we're all getting information back and using that information to improve decisions, it can have economic ramifications for the entire area."

That kind of thinking is fairly new for small businesses, but it makes enormous sense for many industries, says the Supply Chain Council's Bill Helming. "In the early days we took a Darwinian approach: it's me or you. Now companies are learning to compete as a chain"--even if it's a horizontal chain encompassing players that might normally be considered rivals, he explains. Cooperation among small companies also makes them more attractive suppliers to large customers. "In the past, people have said, `All these mom-and-pops are too hard to do business with. I have to negotiate separate terms with every one,'" he adds. "If everyone will agree to act in a standard way and use this technology for leverage, that can make for a very effective collaboration. It could totally change the playing field."

RELATED ARTICLE: where's the beef?

What follow are the four most common links in the beef-manufacturing chain. Retailers and distributors are also involved, but since information is tracked using **ear tags** that are removed at the packing plant and sent back to the rancher, their ability to enter information into the system is currently limited.

What they do

Ranchers: They breed cows and bulls to produce calves, both for meat and as replacements for the herd. They generally sell the calves once they

are weaned, at six to eight months, and weigh 500 to 600 pounds.

Stockers/Growers: Their objective is to add weight as fast as possible while keeping the animal healthy. They sell animals at about 750 pounds, when they are 10 to 12 months old.

Feed-yard operators: They feed animals a high-energy diet for 90 to 200 days, until they reach approximately 1,100 to 1,200 pounds.

Packers: They slaughter the animal; chill, age, and cut up the carcass; and pack those pieces in boxes for shipment to distributors and retailers.

Data they review or collect

Genetic history; birth date and weight; weaning date and weight; medical treatments, vaccinations, and other significant incidents

Periodic weight measurements; medical treatments, vaccinations, and other significant incidents

Feed-ration ingredients; weight measurements; medical treatments, vaccinations, and other significant incidents; animal origin and history

Live-animal weight; carcass weight, warm and chilled; yield, grade, and quality of meat; carcass defects

RELATED ARTICLE: equal-opportunity beef

Americans love red meat and democracy. So what could be better than a nationwide system that ensures all flank steaks are created equal?

A national source-verification and performance-data-tracking system similar to those being implemented by several beef alliances was proposed in December by a task force of the National Cattlemen's Beef Association and was scheduled to be voted on at press time. Like the alliance databases, which would feed into it, the national database would be maintained by an unbiased third party. Any cattle company that put information on its animals into the system could track how they fared up and down the road--even if it didn't know who had bought them. (Performance data, searchable by ID number, would be blind, so a rancher might know how much fat a packer found on one of his calves, for instance, but not who that packer was.) The system would be supported by fees from companies using the information to improve their products. "The goal is that ranchers would never have to pay to put data in--just to get it out," says Anne Anderson, a 25-year veteran of the Texas cattle industry and a member of the task force.

If the national system gets a thumbs-up from the association, Anderson expects it will be operational by 1999. But it could be several years before a critical mass of companies participates. "There will be a pretty big gap between the time the alliances and some of the progressive thinkers come in and the time coffee-shop talk gets other to use it," she says. In addition to a pervasive fear of technology among many players ("They're just so intimidated by the Internet," Anderson says), some ranchers are worried that the system might provide the smoking gun in the case of a health scare. If a disease or infection is traced back to their beef, says Anderson, "they don't want to be put out of business, and that's a very real option."

Leigh Buchanan (leigh.buchanan@inc.com) is the editor of Inc. Technology.

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SPECIAL FEATURES: photograph; illustration
INDUSTRY CODES/NAMES: BUS Business, General; BUSN Any type of business
DESCRIPTORS: Cattle industry--Production management; Beef industry--Production management
PRODUCT/INDUSTRY NAMES: 0212100 (Beef Cattle)
SIC CODES: 0210 Livestock, Except Dairy and Poultry
FILE SEGMENT: MI File 47

3/9/13 (Item 7 from file: 20)
DIALOG(R)File 20:Dialog Global Reporter
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06581761 (THIS IS THE FULLTEXT)

THE 5P CALF

SECTION TITLE: News

STEPHEN OLDFIELD

DAILY MAIL, p27
August 07, 1999
JOURNAL CODE: FDM LANGUAGE: English RECORD TYPE: FULLTEXT
WORD COUNT: 671

A FARMER who sold a bull calf at market has been issued with a cheque for just 5p as the crisis in the industry deepens.

The **animal** was **auctioned** this week at Newcastle Emlyn market in West Wales and the bid accepted was pounds 1. But after commission and VAT were deducted, the crestfallen farmer - who is too embarrassed to be identified - was left with a cheque not worth the paper it was written on.

Adding insult to injury, the auctioneer's invoice read: 'Thank you for your custom.'

A similar collapse in prices has affected farmers elsewhere. Brian Jones, who farms in Caersws, Powys, went to Welshpool market with three calves and also received bids of pounds 1 for each of them.

With the **auctioneers** ' fixed commission of pounds 3.50 per **animal** , Mr Jones would have been left pounds 7.50 out of pocket, so he withdrew them from sale.

Another example of the collapse of the calf market came at an auction in Denbighshire last week.

A farmer sold 12 one-week-old Limousin calves for pounds 24, but with the **identification ear tags** having cost pounds 1.30 each, he was left with only 70p a calf.

Behind the ballyhoo of last weekend's announcement of the lifting of the beef export ban to Europe, the Government has snatched away a vital financial cushion for farmers.

A subsidy scheme which was worth around pounds 25million-a-year to help offset losses caused by the BSE crisis ended at the same time.

The Calf Processing Aid Scheme - compensation paid for three years for the incineration of bull calves taken out of the beef production chain - was abandoned even though farmers are still not allowed to export calves under six months old.

With the once-lucrative trade to France, Belgium and Holland denied them, farmers are left with 600,000 calves a year flooding the market, and few takers.

Before the BSE crisis, 500,000 calves a year were going to export and fetching about pounds 85 each.

Mr Jones, 55, said: 'The scheme intitially paid us around pounds 70 a calf. When it finished last weekend we were getting pounds 38.

'The past equation roughly was that 30 calves a year brought me around pounds 2,000. Now that has become virtually nothing.

'I could not survive if my wife didn't work.'

Farmers last night pleaded with the Government to re-introduce the CPAS scheme until the beef export market has recovered. Arwyn Owen, deputy director of policy with the Farmers' Union of Wales, said: 'The ending of CPAS before the full restoration of beef exports is a recipe for disaster on the farms.

'We can once again export beef, that's fine. But it represents the merest trickle of the pounds 520million trade that existed before the ban was imposed.'

If the Government does not restore CPAS, then farmers want it to resume immediately the export of live calves to their traditional Continental market places.

A spokesman for the Meat and Livestock Commission said that one solution it was suggesting to farmers was to sell young bull calves as pet food.

Alan Morris, a spokesman for the Farmers' Union of Wales, said figures showed that for the 25,000 farms in Wales the average net income for 1997-98 was pounds 2,000. Some were 'well below the poverty level', he added.

The plight of Welsh farmers is mirrored in England, but it is not as acute because arable farming is more widespread than across the border.

The latest struggles for those working in the industry come two months after it was revealed that a Somerset farmer had been forced to sell a lorry-load of healthy calves for just 29p each.

Graham Bigwood watched in disbelief as his ten Hereford-cross heifers fetched a mere pounds 30 at auction in Taunton. After VAT and auction fees, he was left clutching a cheque for pounds 2.97.

ational Farming Union officials blamed the BSE crisis, strong pound and weak euro with the collapsing Russian market for the most severe farm crisis in 50 years.

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DESCRIPTORS: Agricultural Issues; General News
COUNTRY NAMES/CODES: United Kingdom (GB)
REGIONS: Europe; European Union; Western Europe
PROVINCE/STATE: Wales
SIC CODES/DESCRIPTIONS: 8631 (Labor Organizations)
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File  15:ABI/Inform(R) 1971-2004/Feb 03
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Set     Items   Description
S1       4949   (LIVESTOCK? OR PET OR PETS OR ANIMAL? OR CATTLE)(7N)AUCTIO-
             N?
S2   14643487   PD<000128
S3        773   S1 AND S2
S4    1987701   BUYER? OR PURCHASER?
S5        184   S3 AND S4
S6    7836982   SELLER? OR OWNER? OR VENDOR? OR MERCHANT?
S7         97   S6 AND S5
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7/9/6 (Item 1 from file: 610)
DIALOG(R)File 610:Business Wire
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00092552 19990819231B0116 (THIS IS THE FULLTEXT)
e-Auction Announces Launch of EuroNet Trading Portals; Pan European Networks Targeted to Link Standalone European Systems Currently Trading $7 billion in Perishable Commodities
Business Wire
Thursday, August 19, 1999 09:31 EDT
JOURNAL CODE: BW LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT
DOCUMENT TYPE: NEWSWIRE
WORD COUNT: 675

TEXT:
LONDON, Aug 19, 1999 (BUSINESS WIRE via COMTEX) - e-Auction Global Trading Inc. ("e-Auction")(OTC BB:EAUC) today announced the launch of their 'EuroNet Trading Portal' initiative.

EuroNet Trading Portals will initially be offered to Schelfhout Computer Systemen's n.v. ("SCS") existing customers running standalone auction networks and systems throughout Europe, which currently conduct approximately $7 billion in trade. EuroNet Trading Portals will enable these auctions to link together and sell their goods to international **buyers** throughout Europe by being able toconfirm payment and credit-worthiness.

Currently, auction networks are unable to link together due to the uncertainty of international financial settlement. By adding e-Auction's settlement services, these auctions can offer perishable commodities to a wider range of credit-worthy **buyers** and ensure that the growers are receiving fair market prices for their goods. EuroNet Trading Portals will provide proof of financial settlement along with foreign exchange services, and eventually expand to provide letters of credit and insurance.

"EuroNet Trading Portals can fundamentally change the European auction industry," commented Luc Schelfhout, President of Schelfhout Computer Systemen n.v., "The availability of networks which will provide full financial settlement for our member auction houses will allow them to reach more customers and help the growers receive fair market value for the goods."

EuroNet Trading Portals will link auctioners of perishable commodities together to create one large buying network for items such as fish, fruits & vegetables, flowers and **livestock** . e- **Auction** 's pan-European networks will enable SCS's European customers to offer goods to more international **buyers** thereby increasing demand and market efficiency. After launching these networks in Europe, e-Auction will offer these services to SCS customers in countries such as into Argentina; Uruguay; Brazil; Australia; India, Morocco and China.

"The introduction of our EuroNet Trading Portal initiative is another step towards our goal of delivering the most innovative and responsive industry solutions to the European and International auction markets," commented David Hackett, Chief Financial Officer of e-Auction Global Trading Inc. "In linking these smaller international auctions, e-Auction will help growers and **buyers** create a more efficient market which should help both increase their profitability."

e-Auction Global Trading Inc.

e-Auction, through operations in New York, Toronto, London and Barbados, combines real time, electronic auction systems with integrated financial services including foreign exchange, hedging and financial settlement services. These are vital components to the overall auction process, and allow e-Auction to benefit from multiple revenue streams. e-Auction provides unprecedented value added services to auction houses, **buyers** and **sellers** in all industries that conduct

commodity based trading, resulting in new markets, lower costs and more efficient cost saving transactions for allparties.

As a leader in providing B2B auction solutions, e-Auction is involved in the largest market segment of Internet auctions. According to Forrester Research Inc., it is estimated that by 2002 $52.6 billion in transactions will be conducted through B2B auctions. This value dwarfs the expected $7.5 billion business-to-consumer (B2C) market and the $4.8 billion person-to-person (P2P) market where companies such as eBay (NASDAQ:EBAY), Onsale (Nasdaq:ONSL) and Amazon.com (NASDAQ:AMZN) target their services.

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This press release contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. Such forward- looking statements involve risk and uncertainties which may cause the actual results or objectives to be materially different from those expressed or implied by such forward-looking statements. Such factors include, among other things, the Company's financial performance; changes in the competitive environment; adverse changes in the economy; ability to maintain long-term relationships with customers; and financingrequirements.

For more information on e-Auction please visit the web site at http://www.eauctioninc.com.

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GEOGRAPHY: INTERNATIONAL EUROPE CANADA
INDUSTRY CODE: COMPUTERS/ELECTRONICS
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INTERACTIVE/MULTIMEDIA/INTERNET
RETAIL
PRODUCT

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COMPANY NAMES: AMAZON COM INC; TRADING HOLDINGS LTD; TRADING INTERNATIONAL LTD; FORRESTER RESEARCH INC; EBAY INC; ONSALE INC; MEDIA RELATIONS GROUP; MEDIA RELATIONS INC
GEOGRAPHIC NAMES: EUROPE
INDUSTRY NAMES: FINANCIAL AND COMMODITY MARKETS; INTERNET; NETWORKS; FINANCIAL SERVICES; COMMUNICATIONS TECHNOLOGIES; COMPUTERS; DATA COMMUNICATIONS
EVENT NAMES: FINANCIAL AND COMMODITY MARKETS

7/9/7 (Item 2 from file: 610)
DIALOG(R)File 610:Business Wire
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00089241 199908122224B0099 (THIS IS THE FULLTEXT)

MBT International Finalizes Technical Specifications And Revenue Models For High-Speed Interactive Agricultural Channel To Be Offered By EchoStar

Business Wire
Thursday, August 12, 1999 09:20 EDT
JOURNAL CODE: BW LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT
DOCUMENT TYPE: NEWSWIRE
WORD COUNT: 758

TEXT:
CASTLE ROCK, Colo., Aug 12, 1999 (Business Wire via COMTEX) - MBTInternational (OTC BB:MBTI), **owner** of the premier Internet web sites focused on business to business e-commerce and auctions for the agricultural industry, today announced the completion of the revenue models and framework for the high-speed interactive broadcast service to be launched by EchoStar Communications Corporation (Nasdaq: DISH, DISHP).

According to Andy McKinnon, Chairman and CEO of MBTI, "We are excited to be a leader in the field of convergence of two incredible technologies: satellite television and Internet e-commerce. This could only happen with the opportunity presented to us by the EchoStar team.

We now have a functional narrative for the AgriMall.com portal, and have enlisted the services of a leading Internet developer to finalize construction of the site which will be featured on EchoStar's interactive channel."

MBTI, via the AgriMall portal, will receive a percentage of sales transactions conducted over the interactive channel, as well as a portion of the monthly subscription rate charged for this "a la carte" service.

Advertising revenue opportunities will include multimedia rich banners and text with full motion thirty-second commercial spots to be positioned between featured stories, live events and entertainment features. Live event coverage will include everything from rodeos and horse racing to livestock shows. Entertainment features will be target specific to the agricultural and equestrian community.

MBTI services and entertainment to be delivered to EchoStar subscribers through the interactive channel include:

-- Content pulled directly from the MBTI web sites including existing advertisers and products for sale from specific portals as well as the MBTI horse, cattle, farm and heavy equipment databases.

-- Content derived from the previously announced InfoSpace.com format will be delivered through the AgriMall Channel, including instantaneous transmission of customized interactive agricultural news information, such as video news on demand and Interactive Weather.

-- Live video broadcasts of **cattle** , horse and equipment **auctions** with full motion video. This will include text and video driven statistical information. MBTI will meet the **buyer** 's needs by including video of the cattle and horses in their natural environment, enabling the **buyer** access to all the information necessary to make an enlightened judgment with respect to his or her purchase.

-- All of these videos will be provided to participants in advance of the auction through the AgriMall.com web site. Participation in the auction will require an access fee. These items for auction will not only be derived from items within the MBTI

databases which are already online at AgriMall.com, but also via MBTI's aggressive pursuit of broadcast **auctions** , particularly **cattle auctions** , from across North America.

MBTI's home shopping channel, targeting an agricultural and rural audience numbering sixteen to seventeen million, will also be launched over the interactive channel with a full programming lineup featuring essential products and services for business and home.

About MBT International

MBT International Inc. is engaged in the development of industry specific Internet portal sites, which encompass auctions, broker-assisted buy and sell programs, searchable databases and graphic-intense display of products. The Company currently has over 400, 000 users and is the parent company of AgriMall.com (www.agrimall.com), Horsenet.com (www.horsenet.com), BookStable.com (www.bookstable.com), and the recently launched LifeatHome.com (www.lifeathome.com), a vertical portal targeted at the home improvement and real estate markets, as well as its latest acquisition of IMall Global and its properties (www.equestrianmall.com), (www.horsechat.com), (www.equiseek.com), and (www.equiauction.com).

MBT International, Inc. has an agreement to work with EchoStar Communications Corporation (Nasdaq:DISH, DISHP), the nation's fastest growing direct broadcast satellite (DBS) provider with over 2.7 million customers, whereby MBTI programming and online purchasing capabilities will be offered over a high speed interactive channel. In addition, the Company has signed agreements with the following: Triplus, a Trimac Company, to handle the freight component of certain sales transactions; Texas Equipment, which is in the process of establishing a large storefront featuring John Deere equipment in AgriMall.com; and Silicon Graphics, Inc for technological development. MBT International Inc. is presently viewing possible strategic alliances with other companies in the communications industry.

Certain statements in this release are forward looking. Although MBTI believes its expectations are based on reasonable assumptions within the bounds of its knowledge of its business and operations, there can be no assurance that actual results will not differ materially from its expectations. For factors that may causeactual results to differ materially from expectations and underlying assumptions, see reports by MBTI filed with the Securities and Exchange Commission.
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GEOGRAPHY: COLORADO

INDUSTRY CODE: INTERACTIVE/MULTIMEDIA/INTERNET
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COMPANY NAMES: silicon graphics inc; texas equipment corp; mbt intl inc; echostar communications corp; MBT INTERNATIONAL INC; COMMUNICATIONS HOLDINGS INC; SECURITIES AND EXCHANGE COMMISSION; PHOENIX ALLIANCE INC
GEOGRAPHIC NAMES: USA; AMERICAS; NORTH AMERICA
INDUSTRY NAMES: AGRICULTURAL; BROADCASTING; INTERNET; SATELLITE TV; COMMUNICATIONS TECHNOLOGIES; MEDIA INDUSTRIES; COMPUTERS

7/9/1 (Item 1 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
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00645319 92-60259
Direct Link to Producers
Hansen, Pat
Agri Marketing v30n10 PP: 26-28 Nov/Dec 1992 ISSN: 0002-1180
JRNL CODE: AGI
DOC TYPE: Journal article LANGUAGE: English LENGTH: 2 Pages
WORD COUNT: 1331

ABSTRACT: Some 60% of the 3.5 million US and Canadian homes that have satellite dishes are in rural areas. Via satellite, agricultural advertisers had the chance to reach over 1,200 registered bidders, nearly 600 **sellers** , and numerous observers through the Superior **Livestock Auction** , the largest **cattle auction** in North America, which occurred in September 1992. A 60-second advertisement cost $990, a 30-second spot cost $660, and a 5-minute "infomercial" sold for less than $2,500. A 30-second ad from SmithKline Beecham Animal Health began airing the summer 1992. It is the first time satellite auctions made the media buy for SmithKline Beecham, says Jim Bergeson of Colle & McVoy Inc., and it will be watching the response and feedback for reach and cost effectiveness. Saatchi & Saatchi began airing ads for Merck AgVet in 1988, and has done so since. Eric Hirvonen of Saatchi & Saatchi Specialized Communications says it is an ideal way to sell cattle and cattle related products.

TEXT: When Superior **Livestock Auction** held the largest **cattle auction** ever in North America in September, agricultural advertisers could have reached more than 1,200 registered bidders, nearly 600 **sellers** and numerous observers in the comfort of their home or office.

As these **cattle** producers "attended" the **auction** via satellite, advertisers could have targeted them with a 60-second ad for $990; a 30-second spot for $660; or a 5-minute "infomercial" for less than $2,500.

The auction offered more than 135,000 head of calves and breeding stock from the United States, Mexico and Canada in carload lots.

The 50,000-pound minimum purchase requirement -- the equivalent of 100 500-pound calves -- initially attracted larger ranches and feedlots, says Jim Odle, general manager and co-founder of the Fort Worth, Texas-based company. Now, he says, mid-sized operations also have begun using the auction.

North Americans view the weekly to semimonthly broadcasts on their home satellite system (Galaxy 6, channel 10) or at Superior downlink sites across the country.

"Video satellite **auctions** represent the first change in **cattle** marketing in more than 100 years (the introduction of terminal markets)," notes Buddy Jeffers, Superior co-founder and man responsible for introducing video satellite auctions in 1986.

Jeffers notes that 3.5 million U.S. and Canadian homes have satellite dishes. Some 60 percent of these are rural residents, according to the Satellite Broadcast and Communications Association.

MARKETERS TEST THE WATER. The attractiveness of the audience reached by satellite has several advertising agencies and agricultural suppliers allocating "small" budget amounts to test the effectiveness of the alternative auction form as a promotional medium.

A 30-second ad for a shipping fever preventative from SmithKline Beecham Animal Health, Exton, Pa., began airing this past summer immediately before and after the auctions as part of an awareness campaign.

It is the first time satellite auctions made the media buy for SmithKline Beecham, notes Tim Bergeson, president of Colle & McVoy Inc., based in

Minneapolis. "We'll be watching the response and feedback for reach and cost effectiveness," he says.

In comparison to print and broadcast media, the audience remains less quantified. While the auctions have concentrated on the business at hand -- Superior will offer nearly a million head in 1992 -- definition of the size and composition of participating ranchers and feedlot managers has taken a back seat.

According to this year's U.S. Department of Agriculture (USDA) **Livestock** Market News reports, four video **livestock auctions** exist: Superior **Livestock Auction** , Satellite **Cattle** Exchange Ltd., Producers Video **Auction** and the Western Video Market.

The same reports indicate that Superior has done three to four times the volume of each of the other three companies.

In June, Superior conducted its first survey of 10,000 recent customers from 38 states. The results indicate that this is direct broadcasting in its purist form, according to Patrick Gottsch, head of Superior national advertising sales.
Forty-six percent of the operations surveyed were cow/calf; 36 percent, yearling; 16 percent, feedlot; and 2 percent Holstein.

True to the axiom that 20 percent produce 80 percent of the total volume, Superior learned that 13 percent of its ranchers own 2,500 or more head of livestock and that 30 percent of its feeding operations fed out more than 5,000 head a year.

UNIQUE OPPORTUNITIES. The appeal of such a targeted medium caught the attention of Bozell Inc., Los Angeles, and Kawaski. "There isn't much out there that is that targeted," points out Craig Prizant, Bozell account supervisor, of the unique opportunity the **auctions** present to reach **cattle** operations.

At SmithKline Beecham, Terry Fritz, associate product manager for cattle biologicals, found a similar appeal. "We're always looking for new, innovative ways of getting our message out....They have a tendency to make people sit up and take notice."

Don Schilling, president of Schilling/Sellmeyer & Associates Inc., Springfield, Mo., hopes cattle producers will sit up and take notice of his video parody of television "re-enactment" programs such as "911" and "Unsolved Mysteries" to promote supplements from Ragland Mills, Neosho, Mo. The entertaining and admittedly off-the-wall "infomercial" shows a rancher and his wife describing how their cattle reached market weight virtually over night.

Saatchi & Saatchi began airing ads for Merck AgVet, Rahway, N.J., in 1988 and has continued to do so ever since. "It seemed to be the wave of the future," explains Eric Hirvonen, senior vice president and media director for Saatchi & Saatchi Specialized Communications, New York. "It's an ideal way to sell cattle and cattle-related products."

Chevy Truck agreed after testing the medium in 1991. If began advertising on every Superior broadcast in 1992.

At Syntex Animal Health, West Des Moines, Iowa, Doug Swanson, manager of advertising and public relations, oversaw the production and airing of two commercials by Superior. In an effort to quantify reach and viewership, each ad included an 800-number viewers could call for a free videotape. No purchase was required.

The response didn't match his expectations, but Swanson is unsure if that relates to the appeal made or the demographics of the audience reached. Many of the largest ranches and feedlots, he acknowledges, rely heavily upon their own contacts and contractual relationships to buy and sell cattle.

On the flip side of that viewpoint, the medium's attractiveness may rest not so much with the number of cattle producers reached, but with the number of head they control, suggests Colle & McVoy's Bergeson, who helps market SmithKline Beecham's cattle biologicals.

A COMPLETE PACKAGE. As a means of holding cattle producers' attention, Superior programming mixes the **livestock** previews and **auctions** with other attractions. Non- **auction** programming has commercial breaks every 15 minutes. Thursday programming consists of:

* "Infomercials" (15 minutes): Self-contained extended video programs from agriculture-related companies.

* Chmielewski Funtime (30 minutes): Music, dancers and a variety of guests join the Chmielewski family band from the Iron World Polkafest in Chislom, Minn.

* Voice of Agriculture (30 minutes): Unique agricultural features highlighting California's $17 billion agricultural economy, insight on produce, and stories of interest to all involved in agriculture.

*N Prime-Time Preview (2 hours) of **cattle** to be **auctioned** .

Saturday morning programming consists of:

* Rodeo Road (30 minutes): The best of the big rodeos from the Professional Rodeo Cowboy Association. Filmed at the top event each week. Hosted by Keith and Reed Flake.

* Sale Day Preview (60 minutes).

* Auction.

* Market Report: Recaps and wraps up the day's sale. Hosted by Clyde Whittle.

WEIGHING THE RESULTS. Will serious cattle **buyers** and **sellers** make this new technology a permanent part of their purchasing and marketing efforts? Independent auction coordinator John Henderson of Rome, Ga., has done just that for Flint Livestock and Cattle Ltd., Woodbury, Ga.
Three years ago, Superior proved itself to him. Today virtually all livestock sold by the ranch, some 5,000 head annually, are videotaped and offered over the satellite. Better than 90 percent sell, Henderson notes.

The cattle get more exposure and Henderson said he brings home $5 to $8 per hundredweight more across the board.

Some cattle have been shipped as far as Colorado.

Among **buyers** , Henderson says he sees many repeat customers but has noticed a recent change. "We were selling to larger producers initially," he notes. "Now we're seeing more smaller operators. They want maybe two loads a year."

Why? "They're getting fresh cattle with no health problems," Henderson explains.

The technology certainly helps dramatically larger numbers of potential **buyers** see the **cattle** and minimizes concerns related to health and **auction** -day weather. An experienced **cattle** **buyer** acting as a Superior representative videotapes the cattle in advance and provides a description of the cattle for the sale book.
Buyers can select among larger numbers of cattle and operations for the weight, breed and health-care program they prefer. The sale book provides a detailed profile of each lot.

The appeal of satellite video **auctions** to **cattle** producers is clear. And decisions about how strongly they appeal to agricultural companies and agencies as a promotional medium don't seem far away either.

Pat Hansen is a free-lance writer from Kanakee, Ill.

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SmithKline Beecham (DUNS:00-138-1342 TICKER:SBE)
GEOGRAPHIC NAMES: US

DESCRIPTORS: Cattle industry; Auctions; Satellite communications; Trends; Agribusiness; Television advertising; Broadcasting
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Planning of Information Systems to Gain a Competitive Edge
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ABSTRACT: Information systems for competitive advantage (ISCA) may be designed to help an organization produce at a lower cost, to differentiate itself from its competitors, or to identify and concentrate on a particular market segment. A methodology for identifying ISCA in small and medium-sized enterprises (SME) consists of 5 steps: 1. creation a working group, 2. familiarization with the concept, 3. analysis of the organization, 4. identification of opportunities for ISCA, and 5. evaluation of the opportunities. The methodology was applied in 3 small and 2 medium-sized manufacturing enterprises in Quebec. A total of 64 opportunities for ISCAs was generated. Examples of the type of ISCA found by the planning methodology in the 5 SMEs are provided, as well as their respective position in the strategic matrix.
TEXT: The advent of powerful, low-cost mini and micro-computers, coupled with user-friendly software, has allowed a greater number of small and medium-sized enterprises (SMEs) to implement information systems in recent years. Computer-based information systems not only reduce costs and provide better information to managers, but also have the potential to increase organizational effectiveness by providing a competitive edge to the SME. "Information Systems for Competitive Advantage" (ISCAs) provide this edge to the enterprise, allowing it to add value to the products or services marketed. These systems can affect the competitive position of an organization by altering the structure of an industry and its manner of doing business, by creating a competitive advantage through new means of surpassing the competition, and by generating new business opportunities within the current operations of the firm. This article introduces the concept of using ISCAs for developing competitive advantage and proposes a methodology specifically designed to identify their applications in small and medium-sized enterprises. The results of applying ISCAs in five SMES are then presented and discussed.

INFORMATION SYSTEMS FOR COMPETITIVE ADVANTAGE

ISCAs are systems that drive the organization's competitive strategy to provide it with a competitive advantage. Such systems reflect the firm's fundamental objectives and may have a significant impact on its success (EDP Analyzer 1984).

ISCAs may be designed to help the organization produce at lower cost, to differentiate itself from its competitors, or to identify and concentrate on a particular market segment (Porter 1980). These three strategies may be achieved by using information technology to raise entry barriers for competitors, increase negotiating power with suppliers, create new dependencies for clients, offer new products or substitutes, and even change the grounds of competition or the nature of the stakes (McFarlan 1984), To provide a competitive advantage, information systems must improve the position of the firm or create new opportunities (Bott, Passino, and Hamilton 1986). Basically, a competitive advantage is created when a firm increases its comparative efficiency or its bargaining power (Bakos and Treacy 1986). This also suggests that what a firm offers is more than the physical product or service itself and that the new information technology is part of the firm's total offering (Porter and Millar 1985).

Three examples of Canadian SMEs having exploited this concept are MKS Inc., Publico Inc., and the Electronic Auction. (For a detailed presentation of these cases, see Raymond, Rivard, and Bergeron 1988.) The first company is a manufacturing organization that produces kitchen cabinets, with annual

sales of about $20 million. Its retailers need up to four hours to prepare a set of specifications for a kitchen, so MKS decided to create a computer-aided design (CAD) application. The system allowed the creation of three-dimensional specifications of the client's kitchen, showing various arrangements of cabinets and counters, in less than five minutes. A detailed statement of the costs of each arrangement also is produced. This system allowed MKS to expand greatly within its territory, at the expense of its competitors.

The second example, Publico, is a small service firm (14 employees) that publishes call-for-tenders(1) in trade magazines. A computerized call-for-tenders (CCFT) system designed to replace these magazines was implemented after a thorough feasibility analysis. It allows entrepreneurs to inform themselves, through a terminal linked to a central database updated by Publico, of the various public calls for tenders put out by government departments, municipalities, and other such organizations. This service replaces having to look at newspapers or specialized publications. It is very popular with entrepreneurs who now have easier access to a greater number of calls for tenders, and in a more timely way. Subscribers to the CCFT thus have more time available than their competitors to prepare their proposals, which explains why this service has been such a success for the company which originated it.
The last example is a co-op that employs 10 people and specializes in the sale of pigs, the Electronic Auction. This system allows pig farmers to register their animals at a central agency that puts them up for sale. **Buyers** are linked to the auction electronically. The pigs are sold to the highest bidders, and the auction chooses **sellers** from among its members so as to minimize transportation costs between **buyer** and **seller** . Compared to traditional **auctions** ,, where the **animals** must be transported to the **auction** site and prices can fluctuate greatly, the Electronic Auction reduces transportation costs, stabilizes prices, and allows its members to reach new clients located at greater distances.

ADAPTING THE ISCA CONCEPT TO SMALL BUSINESS

Different methods have been proposed to identify opportunities for competitive use of information technology in organizations. These include Porter and Millar's (1985) value chain. Wiseman's (1988) theory of strategic thrusts, and Benjamin, De Long, and Morton's (1988) strategic opportunities matrix. However, such methods have basically addressed the needs and experiences of large enterprises and need to be adapted for small firms if they are to be effective (Manoochehri 1988). Small firms have unique advantages related to their size and flexibility which they must exploit. These include the ability to make rapid changes in basic orientation, swift implementation of major decisions, proximity of markets, and significant customer loyalty (Julien, Carriere, and Hebert 1988). On the other hand, SMEs generally lack the required financial, human, and information resources to thoroughly analyze the firm and its environment (markets, competitors, strategic position). These firms also offer a limited number of products or services to a very specific market, which increases their vulnerability. Finally, given their size, SMEs obviously have very little control over their extra-organizational situation and usually face greater environmental uncertainty (Dupont 1986).

The use of information technology in small and medium-sized firms is affected by these conditions. Certain characteristics of SMEs--such as their resource "poverty," the intuitive as opposed to analytic nature of planning and decision-making, the rapid evolution of the firm, and the firm's dependency on a few key individuals--often create important challenges for development and implementation of computer-based information systems (Raymond et al. 1989). Nevertheless, a strong potential for using information technology in SMEs exists not only at the operational level, but also at the administrative and strategic levels (Raymond, Rivard, and Bergeron 1988).

Finally, since the planning process must be adapted to SMEs, it is essential to respect the management style of the **owner** -manager in assisting him or her to examine the goals and the strategies of the firm (Pelham and Clayson 1988). This will often imply the intervention of an

outside consultant with the expertise required to help managers focus on the critical aspects of the enterprise (Robinson 1982).

A METHODOLOGY FOR PLANNING ISCA'S

A practical and operational methdology for identifying ISCAs in SMEs was developed by adapting two previously cited approaches initially designed for large enterprises, namely the value chain and the theory of strategic thrusts. (For more details on the development and validation of this methodology, see Bergeron, Buteau, and Raymond 1990.) The contribution of this adapted methodology resides in its explicit approach to the generation of ISCAs. It also proposes a strategic matrix that is applicable to SMEs. The methodology consists of the following five steps:

STEP 1: CREATING A WORKING GROUP

It is important that small business managers perceive a need for change (Julien, Carriere, and Hebert 1988). To make them aware of the benefits of information technology, a small working group must be created. It should usually include the **owner** -manager(s) and the key employees of the organization, especially those responsible for sales, production, and information systems. Collaboration between these individuals will enhance the search for computer applications relevant to their functions. Their early involvement in the planning process will also help facilitate implementation of the identified opportunities. The presence of an outside consultant, to serve as a guide, sounding board, and catalyst in the managers search for ISCAs, also is recommended.

STEP 2: FAMILIARIZATION WITH THE CONCEPT

Managers must become familiar with the new vision of information technology associated with the ISCA concept. This can be done by a clear, summarized explanation of the nature, function, and competitive advantages obtained from use of ISCAs. With the guidance from the consultant or the manager responsible for information systems in the firm, this introduction should stress the differences between ISCAs and traditional systems. Their role in supporting or formulating strategic orientations and the diversity of the competitive applications made possible by information technology also should be described. These concepts can be made more comprehensible by providing examples of ISCAs actually used in other enterprises.

STEP 3: ANALYSIS OF THE ORGANIZATION

One cannot identify system opportunities that are adapted to the firm's strategy without first having a clear understanding of the firm's activities and environment. Members of the planning committee must draw a clear picture of their organization by reviewing its objectives strategy, line of products or services, clients, suppliers, and competitors. At this stage, it is essential to identify the strengths and weaknesses of the SME, as well as the threats it must face and the opportunities it can seize, both from within the organization and in its environment.

STEP 4: IDENTIFICATION OF OPPORTUNITIES FOR ISCAs

A strategic matrix is used to identify opportunities for implementing ISCAs in the firm. This matrix is three-dimensional: including strategic targets, competitive strategies, and organizational activities.

The identification of ISCAs requires prior knowledge of the three main components of the firm's environment that are potential strategic targets of competitive applications. Information technology can be used in many ways to increase client and supplier satisfaction and the firm's competitive position. By allowing the firm to differentiate its products or services, this technology can also support the following three types of competitive strategies: reduction of transaction or production costs; identification of new products, market segments, or niches; and alliances with other organizations. Finally, ISCAs can also support the various organizational activities or functions of the SME. Once the three underlying dimensions have been fully understood, a series of questions can be raised by the consultant within each element of the matrix. Thus, for

each potential strategic target and competitive strategy, managers must ask themselves if there is a way to obtain a competitive advantage from applying information technology to various activities of the firm.

STEP 5: EVALUATION OF THE OPPORTUNITY

Each opportunity identified at the previous step must then be submitted to a summary analysis of its feasibility. This includes evaluating development and implementation costs, benefits, and risks to the organization. A decision to implement each opportunity or not can then be taken, and an initial timetable can be agreed upon based on the priority assigned to each application.

Each step requires an intensive session. However, there should be a certain amount of time between each session to allow members of the planning committee to: collect relevant data when required (particularly for the organizational analysis); reflect on the concept; develop a strategic vision; and transmit relevant information to their subordinates. As shown in figure 1, the matrix contains some of the ISCAs identified in five SMEs. (Figure 1 omitted) The types of results that can be expected when this methodology is employed follow.

APPLYING THE METHODOLOGY

To illustrate the type of results that can be expected, the methodology was applied in three small (less than 250 employees) and two medium-sized (less than 350 employees) manufacturing enterprises(2) located in the province of Quebec, Canada. The firms operated in the following sectors: furniture, food processing, paper, leather, and chemical products. A working group was formed in each firm. The group was comprised of the **owner** -manager, the employee responsible for information systems, and the production or sales manager (depending on the management hierarchy). An information systems consultant experienced with this type of methodology acted as the initiator and counselor throughout the project.

A total of 64 opportunities for ISCAs was generated, an average of about 13 in each firm. The most frequent strategy, cost reduction, was aimed at clients (25), followed by the differentiation strategy aimed at competitors (16). This resulted in a decision by the firms to implement nine of these applications within the next year, and another 18 within the next two years. Examples of the type of ISCAs found by the planning methodology used in the five SMEs are shown in figure 1, at their respective position in the strategic matrix.

CONCLUSION

Information technology can be used as a strategic weapon by SMEs to maintain their competitiveness and attain a choice position within their sector of activity. The planning methodology proposed in this article first aims to make managers aware of the strategic potential of information technology. Then it strives to help them identify opportunities for applying this technology. However, the manager must be aware that not all the opportunities generated by this methodology will automatically procure a competive advantage. Finally, in-depth investigations of actual implemented systems should be conducted to provide a truer test of the effectiveness of the methodology presented here.

FOOTNOTES

1 Also known as "requests for bids," or RFBs--Ed. 2 Based on the size criteria used by the U.S. Small Business Administration (1984) for the manufacturing sector.

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Kazari acquires e-Auction Global Trading Inc.

CANADA NEWSWIRE
March 01, 1999
JOURNAL CODE: WCNW LANGUAGE: English RECORD TYPE: FULLTEXT
WORD COUNT: 340

e-Auction teams with Sanga International to support aggressive international expansion

NEW YORK, Mar. 1 /CNW/ - Kazari International, Inc. (``Kazari'', NASDAQ: KZAR) today announced that it has acquired all of the issued and outstanding common shares of e-Auction Global Trading Inc. (``e-Auction'') in a one-for-one share exchange. Kazari will issue 34.5 million restricted common shares and change its name to e-Auction Global Trading Inc.

e-Auction and its affiliates conducted over $200 million in electronic **cattle auction** trades in 1998 making them one of the world leaders in the business-to-business Internet auction market. Forrester Research predicts strong growth in business auctions to USD 52.6 billion by 2002, driven primarily by commodity auctions (March 1998). e-Auction and its affiliates are profitable and are expected to sustain high growth consistent with the growth of this market.

e-Auction is leveraging its worldwide partnership with Sanga International Inc., a global provider of e-Business technology to extend its auctioning solutions from North America to customers in Europe and Australia/NZ. ``We are extremely pleased that e-Auction has formed a worldwide alliance to be Sanga's global auction partner,'' commented John Andrews, CEO of Sanga International Inc. ``Sanga and its partners fully support e-Auction's aggressive expansion plans as we believe that our initiatives could dramatically affect the way commodity industries conduct business internationally.''

About e-Auction Global Trading Inc.

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e-Auction, through operations in New York, Toronto, London and Barbados, combines real time, electronic auction systems with integrated financial services including foreign exchange, hedging and financial settlement services. These are vital components to the overall auction process, and allow e-Auction to benefit from multiple revenue streams. e-Auction provides unprecedented value added services to auction houses, **buyers** and **sellers** in all industries that conduct commodity based trading, resulting in new markets, lower costs and more efficient cost saving transactions for all parties. For more information on e-Auction please visit their web site at http://www.eauctioninc.com

/For further information: Investor Relations - TPI 1-888-461-9991; Corporate Relations - Todd Humphrey, e-Auction Global Trading Inc. (416) 214-1587, thumphrey(at)eauctioninc.com; Media Relations - Katherine Prigge/ 13:12 ET

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Online auction bidders are in need of safety Nets
EXPRESS ON SUNDAY
August 08, 1999
JOURNAL CODE: FSE LANGUAGE: English RECORD TYPE: FULLTEXT
WORD COUNT: 996

9FANCY bidding for a pair of Muhammad Ali's boxing gloves online? Or using your PC to book holiday flights at bargain prices? Rather than going under the hammer in the traditional way, everything from cows to electrical goods to bargain holidays can now be bid for with the click of a mouse.

In just a few years the way the centuries-old auction is carried out has been transformed by the Internet.

Even the bluebloods of the auction industry, Sotheby's and Christies, will be opening Internet sites this autumn. And proving there are no limits to what can be sold, last April a Canadian site became the first to auction cows in cyberspace. It plans to sell pigs and sheep soon, too.

Consumers are unlikely to be bidding for **livestock** but online **auctions** are springing up for holidays, books, collectables, celebrity memorabilia and almost anything else you can think of. They offer the convenience of viewing items for sale, watching the price changing, then bidding and paying for any puchases by credit card without leaving the house.

The Internet auction company monitors bids, updates the prices online and informs people via e-mail when they have been successful.

However, some of the person-to-person sites, where individuals post details of goods and invite bids for them, have become havens for confidence tricksters. This is a particular problem with US sites and American consumer watchdogs are warning that personal auctions are one of the biggest areas of fraud on the Internet.

One site, eBay, has received many complaints from **buyers** whose credit card payments have gone through but who have not received goods. Others complain they have received faulty or unauthentic goods. EBay maintains it cannot inspect the goods for sale as it never has them in its possession. The company relies largely on **sellers** ' honesty but has set up a system which enables individuals and companies to notify it if illegal goods are being sold. The offending auction is then closed down.

Consumer bodies in the UK have not received many complaints about online auctions - yet - but they warn would-be **purchasers** to be on their guard.

Dundee trading standards officer Ken Daly says bidders should be especially careful if the **seller** is a private individual. Most consumer protection laws do not cover such sales, so those who hit a problem could find it next to impossible to resolve.

"People should also be wary of claims about collectables, especially if there appear to be a number of people offering the same or similar items," adds Daly. "As you can't examine the item or have it appraised until after the sale, you can't assume claims made about it are valid. Insist on obtaining a written statement describing the item and its value before you pay."

UK-based auction site Qxl is working on a safe-pay program which should be operating by October. It takes payments from **buyers** and holds them until they confirm they are happy with their purchases. If **buyers** are unhappy, their money is refunded.

Mary Beth Christie of QXL says: "We are aware that not every Internet user is honest and are working on making our site more reliable. We are starting a program where **sellers** send us a photograph of the item for sale so we can have it appraised."

A growing number of people is undeterred by the worries about fraud and are eagerly logging on to The Web in the hope of beating others to the bargains. QXL has held more than 100,000 auctions since it opened its site eight months ago.

One of the most popular sites for bargain air fares is lastminute.com, where airlines post seats they cannot otherwise sell. Pete Flint at lastminute.com says: "Every one arrives at the last minute and is a

bargain. We are so confident you won't find flights and hotels cheaper anywhere else for the same time or day that we refund the difference plus GBP20 if you do."

On eBay, the world's largest person-to-person online auction site, more than 2million items are up for grabs. A trawl through the listings uncovers china tea services, collectable train sets, a suspiciously large number of boxing gloves signed by Muhammad Ali - and even "personalised" potty-training books. EBay, based in the US, has recently launched a UK site. However, even on the US site, many of the items on sale can be shipped or posted anywhere in the world, although the **buyer** has to pay the cost.

Sending a 1lb package, about the weight of a pair of boxing gloves, from the US to the UK by ship would take four to six weeks and cost about GBP2.80. Dispatching it via airmail takes three to seven days and costs around GBP6.25.

In many cases the auction site acts only as an agent, allowing individuals to post items for sale or bid on goods advertised by other **sellers** . The **seller** and winning bidder get in touch via e-mail to arrange shipment and payment - usually by cheque or money order.

There are also sites where companies auction off goods they have bought cheaply from wholesalers, and other sites where businesses sell directly to the public. Payment here is usually by credit card.

Qxl has two sites. One auctions items the company has bought from wholesalers; on the other individuals trade among themselves.

Some person-to-person sites, such as eBay, make their money by taking a small fee from the **seller** for listing the items on sale and also by taking commission on goods sold. Others, including UK-based sites Yahoo and Qxl, are free, although experts say this could change as they become more popular. Many people worry about putting their credit card details on the Internet but if you use a secure (encrypted) site your details will be protected in transit because the numbers will be scrambled. You can tell if a site is secure - the little padlock symbol at the bottom of your browser page will be closed.

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TITLING LAWS AND POOLING RESOURCES BY AUCTIONS TOP INCOMING NAAA PRESIDENT'S TO-DO LIST

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Sept 23, 1991
ISSN: 0005-1551
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After high school graduation, Larry Hedrick headed off to Newport News, Va., to learn the shipbuilding trade. A few years later, with his first child on the way, Hedrick and his wife, Sue, decided to return to family in North Carolina.

Hedrick went to work selling farm machinery for his father-in-law. He was fascinated with his first auction of farm equipment. He loved the theater and the salesmanship of the scene. He liked the swarms of people. So he signed up for a two-week course in auctioneering. He put his skills to work auctioning farm equipment.

In 1970, a fellow auctioneer told him about an opening at Manheim's auto auction in High Point, N.C. He tried out for and won the one-day-a-week job. Six years later, he and his father-in-law started their own auto auction.

In those early days, Hedrick's hopes were modest. He wanted to take in 300 cars a week on dealer consignment and sell half of them at his two-lane auction. Never in his wildest expectations, admits Hedrick, did he think the auto auction business would escalate to its present levels.

Today, 800 to 1,000 cars a week go through Hedrick's five-lane auction. He holds a dealer consignment sale on Tuesdays and a General Motors' sale every other Wednesday. He has an Oldsmobile-Cadillac dealership in Statesville, N.C. He owns a NASCAR racing team with Larry Pearson as the driver and Kellogg's as the sponsor.

The 50-year-old Hedrick will serve the next year as president of the National Auto Auction Association.

How would you assess the state of the auto auction industry?

Good, with qualification. Right now, it's down about 20 percent to 35 percent. Lower dealer consignment business has driven it down. The factory program cars are up or flat from 12 months ago because of the manufacturers' 100-percent buyback commitment. Overall sales percentages are much higher, though. It's the old supply-and-demand theory working at its best. We're selling a higher percentage of what comes to auction, but the volume is less.

Is your auction following the same track as the industry?

No question. Our business is typical of the industry.

Is there any variation from region to region of the country? Is your Southeastern region any different from the rest of the country?

It's the same regionally. If there is any variation, it would be very slight.

Why has the auction business fallen off?

There are a number of reasons for what has happened, as I see it. The National Automobile Dealers Association projected a couple years ago that there would be losses of new-car dealers. That projection has begun to happen. Dealer consignment cars find their way into auctions as new-car sales generate trade-ins. And cars come in as repossessed vehicles through banks and factory credit corporations. If the economy goes south, as it did, there is a tightening of credit policies that allows loans only to AAA-rated customers rather than the marginal risk customers, so there are fewer repos. And people are driving cars longer than did, too.

Do you expect an upturn in the economy and the auction business soon?

I'd like to think we're on the other side and up the wall of the economic trough. I'm an eternal optimist. I really think the automobile business is on the verge of taking off upward.

What signs make you optimistic?

I wish I could say I can see good strong signals, but I don't. I just hope the upturn is coming maybe in the next six months.

How is the health of the nation's auctions?

Good. Like all human beings, we tend in better times to become a little loose and complacent. The soft economy has made auctions all stop, tighten their belts and become lean and mean.

Let's assume this economic downturn is short-term. What do you see for the future of the industry?

It will be short term. That's a fact. The dealers who survive this downturn are going to be very auction conscious and auction oriented. I think we'll see more participation - a larger percentage - of dealers coming to **auctions** .

Why is that?

It's like the **cattle auction** business. Years ago, only a portion of **cattle** were sold at **auction** . Today, it's 100 percent. Now every rancher knows the auction is the clean, quick and safe way to sell and buy **cattle** . Automobiles will follow same trend. The **auction** brings the most **buyers** and **sellers** to a primary point to balance inventory, either get rid of inventory or secure new inventory. It's the best marketing tool to move large quantities of vehicles quickly. And it's the only place you can sell a vehicle and get more than what you asked for.

The percentage of dealers who have attended auto auctions has increased significantly in the last few years. Why is that?

There have been suggestions by the manufacturers for greater dealer participation in factory sales given the fact that program cars and used cars are a larger profit center for the new-car dealer than new-car sales. The dealer who wasn't familiar with auctions went to a factory sale and wasn't humiliated because he didn't know the process. The factory sales have brought new-car dealers in and made them feel comfortable with the process. Then they come back to dealer consignment sales to buy and sell vehicles.

Do you see a change in the number of auctions across the country?

Auctions have been going up at a rate of maybe three to five a year. But with the uncertainties of the car business, there won't be as many people sitting in corporate offices suggesting they pool their money and start an auto auction. In another four to five years, when the auto industry is back at the peak of another cycle, that attitude may change.

Do you see a change in the mix of chain auctions versus independents in the association?

I see a continuation of chains buying certain independents. But perhaps as many independents will added to the association as are absorbed into the chains. Chains can offer some things an independent auction can't offer. But independent auctions offer something chains can't.

We need to get more of the independents to join the association. If you look at the number of auctions that exist around the country, it's several thousand. But the association has accepted only 224 members. It's quite possible some who are not association members will begin to see merits and benefits of belonging to the auction association.

The factory program cars have been the subject of much controversy lately. As you see it, what is at the heart of the issue?

As I understand it, dealers think there is an inequity in the pricing of new cars, between franchised new-car dealers and fleet operators. Perhaps the dealers making that charge don't understand the ramifications of a manufacturer not being able to manufacture and sell bulk volumes of cars. Manufacturers need to dispose of large volumes to keep plants operating and to maximize investment.

At the same time, franchised dealers have been concerned that daily rental car companies get better deals than dealers. More important, those rental car companies were selling their cheaper used cars on the corner next to franchised dealers. The dealer was competing for and losing those sales. So, the manufacturers responded. I think wisely. They allow franchised dealers a closed environment to buy those cars in a competitively-conducted sale.

Initially, the dealer body didn't en masse rush to the auctions. Aggressive dealers made the big bucks first. Now, we know for a fact that the percentages of dealers going to auctions has risen dramatically in the last two years. Dealers recognize the very large profit center in used cars.

I don't know what else the manufacturers can do. Unless something changes, it's foolish for the dealer not to take advantage of the auctions.

And I'm speaking as both a franchised dealer and an auction **owner** .

Do you think there is a solution to the program car issue that will please all sides?

I doubt it. The manufacturers have and are constantly searching for some way to appease more of the vociferous dealers, and I'm not sure what percentage that is. You won't hear hue and cry from me personally as dealer. I'm not an advocate to make a change in the process. Now obviously I'm also wearing an auction hat too.

Do you foresee any change in the factory program car process?

I don't see any change in the process. More importantly, I don't advocate change.

What do you see as the biggest challenges facing the auto auction industry?

There are still some people in the used-car industry who are abusing the sale of a car. I'm talking about the re-built salvage cars. Many years ago, we went through a period when odometer rollbacks were the rule rather than the exception. The auction industry led the charge to control, eliminate and eradicate the odometer rollers. And I underscore that this industry led that great effort.

There is still great economic injustice being done and misrepresentation by a few dealers who are rebuilding cars without properly making the **buyer** or auction aware the vehicle is a re-built salvage car. And a lot of states, mine included, won't brand and title those cars the way they should be.

In many states, if a car is totaled in a wreck, insurance companies settle with the **owner** and assume title or a replacement salvage certificate to the wreck. Many arrange repair of the wreck or sell the wreck to a salvage yard or a rebuilder.

That vehicle can be repaired or rebuilt and, in many states, following a cursory inspection, can be re-certified as a road-worthy vehicle with a new, valid title. But the new title doesn't indicate that the vehicle has been rebuilt. Frankly, some state motor vehicle departments don't require titles to indicate the true condition of a car or truck.

We feel that all such titles should be marked as re-built salvage vehicles. Otherwise, some unwitting **buyer** could purchase a vehicle that was a total loss, haphazardly repaired, and fully capable of causing accidents and personal injuries.

That's not to say that there are no good rebuilders out there. But the fact is that there are major differences between say a 1990 car with 2,000 miles and no damage and the same 1990 car which was once totally wiped out. A **buyer** - dealer or consumer - suffers economic loss if he or she unwittingly purchases such a vehicle.

Can NAAA win that issue?

There's real opposition out there to battle. There is a great lobbying effort by the rebuilders and the insurance companies. The insurance companies get less money if the vehicle is forever considered a salvage vehicle on the title. So we're bucking a very big tide in this effort.

What is the biggest change you've seen in your 20 years in the auto auction industry?

The biggest change I've seen is the sharing of information and the level of factory involvement. NAAA now is selling information to electronic communications guidebook companies and others. The number of potential **purchasers** of that information may enable us to monitor odometer discrepancies - a vehicle shows up with less mileage than it previously had - or tie in salvage disclosure. That kind of information and tracking would head those problems off.

There has been more corporate involvement in auctioning cars. The fleet and lease companies as well as the banks have become more active. There has been a general upgrade of the auto auction profession. Auctions have better facilities now, offer more services to the dealers and have more professional staffs. The industry also has become more involved with legislative matters and concerns.

The phenomenal growth of the auto auction industry in the 1980s can be largely attributed to the factory program cars. Some suggest the growth will come from the fleet and lease business in the 1990s. Where do you think the growth in the 1990s will be?

In 1985, we began placing more emphasis on the fleet and lease part of the business than we had. I think their involvement is going to grow somewhat. But I don't know that it will be a doubling or anything. Depending on if there are changes in federal tax laws that make individual

ownership of cars less desirable, leasing could become even more attractive. That would result in an increase for the auction business. Lending institutions are another possible area of growth. We've got to get banks to utilize our services more.

As the new president of NAAA, what do you hope to accomplish?

I'd like to try to get the different states to have more consistent titling laws and requirements. We still have problems with one neighboring state not accepting another state's title. In this day and age, automobiles must cross state lines. We run into lots of problems in that regard. The auction industry has done a good job of being an ally to any and all law enforcement agencies instead of adversary. We've made tremendous strides in that regard.

Do you have some other goals as NAAA president?

Project 2000, which our association started a year ago, has some spin-offs that I'd like to see through. Some relate to pooling resources for the purpose of reducing costs for individual auctions, like obtaining performance bonds to lower cost of independent auctions. They also involve taking advantage of the large purchasing power the association could generate. I'd like to see the association become more involved with national legislation. We need to get dealer consignment sales back up and prevent the economic loss of salvage units coming in unannounced.

In what area has the NAAA been particularly strong in recent years?

Our code of ethics has never been amended. There is no need to amend it. This industry has done a great job in achieving high ethics. Our philosophy is that you milk a cow twice a day and skin it once in a lifetime. You don't get repeat business unless you run an honest, clean business.

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SPECIAL FEATURES: LOB
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7/9/26 (Item 6 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
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02079648 Supplier Number: 42690102 (THIS IS THE FULLTEXT)

UK LIVESTOCK BUYING NETWORKS OFFER SERVICE TO EC TRADERS

Agra Europe, pN/A
Jan 24, 1992
ISSN: 0002-1024
Language: English Record Type: Fulltext
Document Type: Magazine/Journal; Trade
Word Count: 440

TEXT:

More British auction markets are embracing computer selling and their computer procurement networks are expected to be open to **buyers** in other EC countries later this year. Last week ten companies from England and Wales announced they had formed the "Beacon" group which is based in York. It expects to offer a liveweight service for live lamb and pig **buyers** in France and the Netherlands "sometime this summer". Earlier this week "at least" ten others, calling themselves the Lysis Electronic Auction Network - or LEAN - confirmed they were setting up a national grid based at Northallerton in North Yorkshire.

There can be little doubt there will soon be other groups too even though after more than a year of trading the ten franchises within the Aberdeen based EASE group - which was the first computer auction system to be set up in Europe - are currently selling less than 1 500 cattle and 3 000 lambs a week. The Beacon group includes Carlisle and Banbury markets, which are two of the biggest and most committed British auction companies with annual turnover exceeding L50 million. Each of these markets regards the move into computer trading as defensive.

Throughout the live auction sector (which is unique in Britain and Ireland) overheads are rising and incomes are falling. Computer trading is recognised as being a relatively cheap method of attracting new business. The initial target is the primestock producer who sells deadweight. The networks want to attract these by offering competitive bidding and the chance of higher prices. If British supermarkets show they are willing to accept farm assured **livestock** through the electronic **auction** it is possible that the entire national deadweight system could eventually go on-screen.

Social considerations

The other advantage to beleaguered auction companies (sales income throughout the entire auction network was down in 1990 and 1991 as a result of reduced livestock prices) is that expansion through computers is relatively cheap. Costs of up to L50 000 a company have been mentioned but this is nothing compared with the capital needed to expand a business through building new centres.

There are social considerations too. Auctioneers in the LEAN group believe the drift of labour out of agriculture means some farmers no longer have time to attend live markets. They see the electronic system, in which **ownership** is transferred without stock leaving the holding, as the ultimate solution to new pressures. Sales of grain and other commodities could be included once the livestock system is established. To date there is no news of an electronic auction system being adopted in the Irish Republic where more than 100 live primestock venues are listed. (AE London)

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PUBLISHER NAME: Agra Europe Ltd.
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GEOGRAPHIC NAMES: *4EUUK (United Kingdom); 4EU (European Union)
PRODUCT NAMES: *5150000 (Farm Products Whsle)
INDUSTRY NAMES: AGRI (Agriculture, Fishing and Tobacco); BUSN (Any type of business); INTL (Business, International)
NAICS CODES: 4225 (Farm Product Raw Material Wholesalers)
SPECIAL FEATURES: INDUSTRY

7/9/78 (Item 40 from file: 20)
DIALOG(R)File 20:Dialog Global Reporter
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04481952 (THIS IS THE FULLTEXT)
Kazari Acquires e-Auction Global Trading Inc.; e-Auction Teams with Sanga International to Support Aggressive International Expansion
BUSINESS WIRE
March 01, 1999
JOURNAL CODE: WBWE LANGUAGE: English RECORD TYPE: FULLTEXT
WORD COUNT: 452

NEW YORK--(BUSINESS WIRE)--March 1, 1999--Kazari International Inc. (Nasdaq:KZAR)("Kazari") today announced that it has acquired all of the issued and outstanding common shares of e-Auction Global Trading Inc. ("e-Auction") in a one-for-one share exchange.

Kazari will issue 34.5 million restricted common shares and change its name to e-Auction Global Trading Inc.

e-Auction and its affiliates conducted over $200 million in electronic **cattle auction** trades in 1998, making them one of the world leaders in the business-to-business Internet auction market. Forrester Research predicts strong growth in business auctions to USD 52.6 billion by 2002, driven primarily by commodity auctions (March 1998). e-Auction and its affiliates are profitable and are expected to sustain high growth consistent with the growth of this market.

e-Auction is leveraging its worldwide partnership with Sanga International Inc., a global provider of e-Business technology, to extend its auctioning solutions from North America to customers in Europe and Australia/NZ. "We are extremely pleased that e-Auction has formed a worldwide alliance to be Sanga's global auction partner," commented John Andrews, CEO of Sanga International Inc. "Sanga and its partners fully support e-Auction's aggressive expansion plans as we believe that our initiatives could dramatically affect the way commodity industries conduct business internationally."

About e-Auction Global Trading Inc.

e-Auction, through operations in New York, Toronto, London and Barbados, combines real time, electronic auction systems with integrated financial services including foreign exchange, hedging and financial settlement services. These are vital components to the overall auction process, and allow e-Auction to benefit form multiple revenue streams. e-Auction provides unprecedented value added services to auction houses, **buyers** and **sellers** in all industries that conduct commodity based trading, resulting in new markets, lower costs and more efficient cost saving transactions for all parties. For more information on e-Auction please visit their Web site at http://www.eauctioninc.com.

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Katherine Prigge
10:14 EST MARCH 1, 1999

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7/9/5 (Item 3 from file: 9)
DIALOG(R)File 9:Business & Industry(R)
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1055353 Supplier Number: 01055353
The virtual stockyard
(Calgary Stockyards is using TEAM, an on-line auctioning **system, to sell** cattle **in large quantities)**
Globe & Mail, v 150, n 45,168, p B28
September 27, 1994
DOCUMENT TYPE: Business Newspaper ISSN: 0319-0714 (Canada)
LANGUAGE: English RECORD TYPE: Abstract

ABSTRACT:
Calgary Stockyards Ltd has been saved by the use of computers to **auction** its **cattle** . The process has become so successful that from 1993-94, the company sold almost 160,000 of its cattle through computer and only about 81,000 by live auction. The company is using The Electronic Auction Method (TEAM), which allows **buyers** to purchase large quantities of cattle by modem and gives a detailed description of the lot--the carcass or frame size, breed, weight, gender, and feeding program, as well as the number of cattle. Bidding is done by pressing the ENTER key, and the price is increased by a quarter cent following each bid. The **seller** may accept or reject the final offer, which is established when 15 secs have gone by without an additional offer. Calgary Stockyards estimates that the value of the cattle sold by computer is Can$150 mil/yr, as opposed to Can$70 mil/yr for live auctions, although live auctions are still better suited for the sale of small numbers of cattle. The article provides a profile of Calgary Stockyards, and it goes into detail about how ranches and **cattle purchasers** benefit from computer **auctioning** .

COMPANY NAMES: CALGARY STOCKYARDS LTD
PRODUCT NAMES: Livestock and products, except dairy and poultry (021000); Livestock, wholesale (515400)
CONCEPT TERMS: All market information; Sales; Trends
GEOGRAPHIC NAMES: Canada (CDA); Canada (CDAX); North America (NOAX)
?

7/9/71 (Item 33 from file: 20)
DIALOG(R)File 20:Dialog Global Reporter
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05138417 (THIS IS THE FULLTEXT)
Pigs in cyberspace: Canadian plans to auction livestock **via the Internet**
SCOTT MORRISON
FINANCIAL POST, p04
April 29, 1999
JOURNAL CODE: FFP LANGUAGE: English RECORD TYPE: FULLTEXT
WORD COUNT: 317

Shane Maine's company is trying to sell cows in cyberspace. If all goes well, e-Auction Global Trading, the Canadian Internet auction firm he heads, plans to sell pigs and sheep as well.

In another innovation in Internet commerce, e-Auction is trying to establish itself in the growing online commodities auctions market, linking businesses electronically to their supply chain.

The energy sector accounted for most of the estimated $5-billion (US) worth of commodities traded via Internet auctions in 1998.

Technology forecasters such as U.S.-based Forrester Research, see the Internet commodities auction market expanding to as much as $32-billion (US) by 2002.

e-Auction believes it can carve out a niche within that market by focusing on the largely low-tech agribusiness sector.

Satellite and electronic auctions, conducted over costly, closed networks, have been held in North America for about two decades. e-Auction was founded last year by consolidating two small Canadian firms providing technology that enabled the Ontario **Livestock** Exchange to conduct such electronic **auctions** .

David Beck, a technology analyst at TD Securities, says e-Auction is one of the "new intermediaries" that aims to set up targeted gateways on the Internet to consolidate market information, allow customers to learn about **vendors** , products and services within the sector and link **buyers** to **sellers** .

e- **Auction** may also go into partnership with reputable **livestock** **auction** houses. That would enable it to leverage the reputation of a partner such as the OLE, which has long-established relationships with ranchers and meat packers. Agents from the **auction** houses would inspect and grade **cattle** before they are offered for **auction** .

Livestock assessment data would then be entered into the server operated by e-Auction and an online auction would be scheduled. The server would call up pre-arranged auction lots at the appropriate time and customers could bid in real time.

Following bidding, the server would release an auction report, advise **vendors** about transportation arrangements and arrange financial settlements.

Copyright 1999 National Post. Source: World Reporter (Trade Mark) - FT McCarthy.

DESCRIPTORS: New Products & Services; Marketing; Company News
COUNTRY NAMES/CODES: Canada (CA)
REGIONS: Americas; North America; Pacific Rim
SIC CODES/DESCRIPTIONS: 0214 (Sheep & Goats); 7375 (Information Retrieval Services); 0213 (Hogs)

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05055629
"On line" cattle
ACTUALIDAD ECONOMICA, p76
April 19, 1999
JOURNAL CODE: FAEC LANGUAGE: Spanish RECORD TYPE: ABSTRACT
WORD COUNT: 71

The website for Caja Duero, the Spanish savings bank, allows banking operations to be done over the Internet. Also included is a **cattle auction** service, **livestock owners** give details about the **animals** and **buyers** can make their bids either manually or automatically.

The website includes information about the progress of the main financial markets, prices on Spanish stock exchanges and a service which finds the best property deals in an area.

Abstracted from Actualidad Economica in Spanish FT McCarthy - Copyright 1999 Financial Times Information. Source: World Reporter (Trade Mark).

DESCRIPTORS: New Products & Services; Marketing; Company News
COUNTRY NAMES/CODES: Spain (ES)
REGIONS: Europe; European Union; Mediterranean; Western Europe
SIC CODES/DESCRIPTIONS: 7375 (Information Retrieval Services); 6036 (Savings Institutions Ex Federal)

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DIALOG(R)File 610:Business Wire
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00020480 1999083B1045 (THIS IS THE FULLTEXT)
MBT International's AgriMall/Horse Exchange Site Begins Online Auctions
Business Wire
Wednesday, March 24, 1999 07:53 EST
JOURNAL CODE: BW LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT
DOCUMENT TYPE: NEWSWIRE
WORD COUNT: 571

TEXT:
CASTLE ROCK, COLO. (March 24) BUSINESS WIRE -March 24, 1999 - Site to Also **Auction Cattle** and Farm Equipment

MBT International Inc. (OTC: MBTI), a leading provider of agricultural products and services over the Internet, today announced that its first online auction went live on Monday, March 22, 1999 at its www.horsenet.com internet site. The site went live with 21 horses available for bids, representing a small fraction of the total number to be placed online over the next few months. MBTI's online strategy requires a much slower and careful pace than many current online auction sites. Between the MBTI Broker network and the newly acquired HorseNet database, the Company has over 13,000 horses available for sale via the Internet of which it expects to move 15% to 25% to the auction environment.

MBTI online auctions are different from almost every other online auction in that an MBTI broker represents every lot for sale. The potential **buyer** can contact the broker to ask specific questions about the animal or to get a more detailed description of the lot. MBTI also provides escrow services to the **buyer - seller** customers.

Richard Lasater, Chief Technology Officer of MBTI, stated, "We believe the online auction has to be an extension of the traditional services we provide, not a replacement of them. We will bring the farm and heavy equipment auctions online first, then add our value-adds like video streaming and satellite delivery. We are currently negotiating with a traditional auction house to hold our first real-time, simultaneous auction this summer.

Mr. Lasater continued, "MBTI is entering the online auction industry cautiously so as to avoid some of the problems being experienced by similar ventures such as eBay (Nasdaq: EBAY). We will move more **animals** over from the Horse Exchange to the **auction** as our existing broker network becomes more comfortable with working in the online auction environment. Unlike sites like UBID (Nasdaq: UBID), we have an existing customer base and sales network in place. We want to ensure that our core business meshes smoothly with the new technology."

The company noted that the AuctionBarn(TM) software developed by MBTI has no preset limit to the number of lots that can be online at any given time. Additionally, in order to curtail the problem of false bidding, the company has added a module to collect a **buyer** 's premium and pre-validate the bidder's credit card. Since all lots for sale in an MBTI auction are represented by an MBTI broker, MBTI **buyers** are protected from the false-product problems as seen by other online auction sites.

MBTI is the parent company of AgriMall.com (www.agrimall.com), Horsenet.com (www.horsenet.com), LifeAtHome.com (www.lifeathome.com) and Bookstable.com (www.bookstable.com). MBTI's strategy is to acquire high content, value-added, sophisticated yet navigable websites and become a leader in the $300 billion agricultural industry.

Certain statements in this release are forward looking. Although MBT International, Inc. believes its expectations are based on reasonable assumptions within the bounds of its knowledge of its business and

operations, there can be no assurance that actual results will not differ materially from its expectations. For factors that may cause actual results to differ materially from expectations and underlying assumptions, see reports by MBT International filed with the Securities and Exchange Commission.

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KEYWORD: COLORADO
INDUSTRY KEYWORD: COMPUTERS/ELECTRONICS COMED INTERACTIVE/MULTIMEDIA/INTERNET RETAIL PRODUCT

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COMPANY NAMES: mbt intl inc; MBT INTERNATIONAL INC; EBAY INC; RAND **MERCHANT** BANK LTD; INTERNATIONAL GROUP; WOLFE AXELROD ASSOCIATES
INDUSTRY NAMES: INTERNET; MERGERS AND ACQUISITIONS; COMMUNICATIONS TECHNOLOGIES; COMPUTERS; CORPORATE
EVENT NAMES: MERGERS AND ACQUISITIONS